Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Safest Stripper(TM) Paint and Varnish Remover, Catalog Nos. 10100, 10101, 10102, and 10103
MANUFACTURER: 3M
DIVISION: Construction and Home Improvement Markets
ADDRESS: 3M Center
St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 10/29/10
Supercedes Date: 10/29/10
Document Group: 11-1756-3

Product Use: Intended Use: paint and varnish remover

SECTION 2: INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER</td>
<td>7732-18-5</td>
<td>65 - 75</td>
</tr>
<tr>
<td>DIMETHYL ADIPATE</td>
<td>627-93-0</td>
<td>20 - 30</td>
</tr>
<tr>
<td>DIMETHYL GLUTARATE</td>
<td>1119-40-0</td>
<td>1 - 5</td>
</tr>
<tr>
<td>SMECTITE</td>
<td>12199-37-0</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Odor, Color, Grade: off white, slight ester odor.
General Physical Form: Liquid
Immediate health, physical, and environmental hazards:

3.2 POTENTIAL HEALTH EFFECTS
Eye Contact:
Mild Eye Irritation: Signs/symptoms may include redness, pain, and tearing.

Skin Contact:
Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Inhalation:
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion:
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Wash affected area with soap and water. If signs/symptoms develop, get medical attention.

Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.

If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

- Autoignition temperature: No Data Available
- Flash Point: Not Applicable
- Flammable Limits - LEL: No Data Available
- Flammable Limits - UEL: No Data Available

5.2 EXTINGUISHING MEDIA
Material will not burn.
5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Not applicable.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions
Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode.

Environmental procedures
For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Place in a closed container approved for transportation by appropriate authorities.

Clean-up methods
Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Seal the container.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid breathing of vapors, mists or spray. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Avoid contact with oxidizing agents.

7.2 STORAGE
Store away from acids. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS
Use with appropriate local exhaust ventilation. Provide local exhaust ventilation at transfer points. Use in a well-ventilated area. If exhaust ventilation is not available, use appropriate respiratory protection. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.
8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection
Avoid eye contact with vapors, mists, or spray.

8.2.2 Skin Protection
Avoid skin contact. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

If irritation of the skin occurs, discontinue use. The use of gloves is recommended for removal of the stripper and paint residue if prolonged contact may occur. Wash thoroughly after use.

8.2.3 Respiratory Protection
Avoid breathing of vapors, mists or spray. Consult the current 3M Respirator Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Authority</th>
<th>Type</th>
<th>Limit</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMETHYL ADIPATE</td>
<td>CMRG</td>
<td>TWA, as Dimethyl Esters</td>
<td>1.5 ppm</td>
<td></td>
</tr>
<tr>
<td>DIMETHYL GLUTARATE</td>
<td>CMRG</td>
<td>TWA, as Dimethyl Esters</td>
<td>1.5 ppm</td>
<td></td>
</tr>
</tbody>
</table>

SOURCE OF EXPOSURE LIMIT DATA:
ACGIH: American Conference of Governmental Industrial Hygienists
CMRG: Chemical Manufacturer Recommended Guideline
OSHA: Occupational Safety and Health Administration
AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- Odor, Color, Grade: off white, slight ester odor.
- General Physical Form: Liquid
- Autoignition temperature: No Data Available
- Flash Point: Not Applicable
- Flammable Limits - LEL: No Data Available
- Flammable Limits - UEL: No Data Available
- Boiling point: >=100 °C
- Density: No Data Available
- Vapor Density: No Data Available
- Vapor Pressure: Approximately 8 mmHg [Details: CONDITIONS: 77 degrees F]
Specific Gravity: 1.00 - 1.03  [Ref Std: WATER=1]

pH: Approximately 7

Melting point: No Data Available

Solubility In Water: No Data Available

Evaporation rate: Approximately 1  [Ref Std: WATER=1]  [Details: CONDITIONS: Estimated, based on formulation.]

Volatile Organic Compounds: Approximately 216 g/l  [Test Method: South Cost Air Qual Mgmt Dist]

Kow - Oct/Water partition coef: No Data Available

Percent volatile: 94 - 97 % weight

VOC Less H2O & Exempt Solvents: No Data Available

Viscosity: 60000.0 - 110000.0 centipoise

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:
10.1 Conditions to avoid
Temperatures above the boiling point

10.2 Materials to avoid
Strong acids
Strong bases
Strong oxidizing agents

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>Not Specified</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>Not Specified</td>
</tr>
</tbody>
</table>

SECTION 11: TOXICOCOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.
CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate in an industrial or commercial facility in the presence of a combustible material.

EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS
Contact 3M for more information.

311/312 Hazard Categories:
Fire Hazard - No  Pressure Hazard - No  Reactivity Hazard - No  Immediate Hazard - Yes  Delayed Hazard - No

STATE REGULATIONS
Contact 3M for more information.

CHEMICAL INVENTORIES
The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.
Contact 3M for more information.

INTERNATIONAL REGULATIONS
Contact 3M for more information.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification
Health: 1  Flammability: 0  Reactivity: 0  Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification
Health: 1  Flammability: 0  Reactivity: 0  Protection: B

Hazardous Material Identification System (HMIS(r)) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS(r) ratings are to be used with a fully implemented HMIS(r) program. HMIS(r) is a registered mark of the National Paint and Coatings Association (NPCA).

Reason for Reissue: The MSDS has been revised because 3M has adopted the 16-section ANSI/ISO format. The potential hazards of the product have not changed. We encourage you to reread the MSDS and review the information.

Revision Changes:
Section 2: Ingredient table was modified.
Copyright was modified.
Section 6: Release measures information was deleted.
Section 6: Release measures heading was deleted.
Section 8: Engineering controls information was modified.
Section 8: Skin protection phrase was modified.
Section 8: Prevention of swallowing information was modified.
Section 10: Materials and conditions to avoid physical property was deleted.
Section 14: Transportation legal text was modified.
Section 9: Property description for optional properties was modified.
Section 14: ID Number(s) Template 1 was modified.
Section 6: Environmental procedures heading was added.
Section 6: Personal precautions heading was added.
Section 10.1 Conditions to avoid heading was added.
Section 10.2 Materials to avoid heading was added.
Section 6: Personal precautions information was added.
Section 6: Environmental procedures information was added.
Section 6: Methods for cleaning up information was added.
Section 10: Materials to avoid physical property was added.
Section 10: Conditions to avoid physical property was added.
Section 8: Hand protection information was added.
Section 6: Clean-up methods heading was added.

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Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol)
MANUFACTURER: 3M
DIVISION: Construction and Home Improvement Markets
ADDRESS: 3M Center, St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 09/07/12
Supercedes Date: 08/23/12
Document Group: 22-4025-7

Product Use:
Intended Use: Adhesive aerosol
Specific Use: General Purpose Aerosol adhesive

SECTION 2: INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No.</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>NON-VOLATILE COMPONENTS (NJ TRADE SECRET # 04499600-6433P)</td>
<td>Trade Secret</td>
<td>20 - 30</td>
</tr>
<tr>
<td>ACETONE</td>
<td>67-64-1</td>
<td>20 - 30</td>
</tr>
<tr>
<td>PROPANE</td>
<td>74-98-6</td>
<td>15 - 25</td>
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<tr>
<td>2-METHYLPENTANE</td>
<td>107-83-5</td>
<td>10 - 20</td>
</tr>
<tr>
<td>CYCLOHEXANE</td>
<td>110-82-7</td>
<td>3 - 7</td>
</tr>
<tr>
<td>3-METHYLPENTANE</td>
<td>96-14-0</td>
<td>3 - 7</td>
</tr>
<tr>
<td>2,3-DIMETHYLBUTANE</td>
<td>79-29-8</td>
<td>1 - 3</td>
</tr>
<tr>
<td>2,2-DIMETHYLBUTANE</td>
<td>75-83-2</td>
<td>1 - 3</td>
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<tr>
<td>HEXANE</td>
<td>110-54-3</td>
<td>&lt; 0.8</td>
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</table>

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Aerosol
Odor, Color, Grade: clear, sweet fruity odor
General Physical Form: Liquid
Immediate health, physical, and environmental hazards: Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure. May cause target organ effects. Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:
Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:
Prolonged or repeated exposure may cause:
  Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, and itching.

Inhalation:
Intentional concentration and inhalation may be harmful or fatal.
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.
May be absorbed following inhalation and cause target organ effects.

Ingestion:
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.
May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:
Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.
Prolonged or repeated exposure may cause:
Peripheral Neuropathy: Signs/symptoms may include tingling or numbness of the extremities, incoordination, weakness of the hands and feet, tremors and muscle atrophy.
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.
Skin Contact: Wash affected area with soap and water. If signs/symptoms develop, get medical attention.
Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.
If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES
5.1 FLAMMABLE PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoignition temperature</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>-42.00 °F [Test Method: Tagliabue Closed Cup]</td>
</tr>
<tr>
<td>Flammable Limits (LEL)</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flammable Limits (UEL)</td>
<td>No Data Available</td>
</tr>
<tr>
<td>OSHA Flammability Classification</td>
<td>Class IA Flammable Liquid</td>
</tr>
</tbody>
</table>

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Read and follow safety precautions on the solvent label and MSDS.

6.2. Environmental precautions
Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

Clean-up methods
Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate organic solvent. Seal the container.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Do not pierce or burn container, even after use. No smoking while handling this material. Do not spray near flames or sources of ignition. Avoid breathing of vapors, mists or spray. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Vapors may ignite explosively. May cause flash fire. Prevent build-up of vapors - open all windows and doors. Maintain vapor concentrations below recommended exposure limits. Use only with cross-ventilation. Without adequate ventilation, vapors may settle in low-lying areas. Keep away from heat, sparks, and open flame. Do not smoke or ignite matches, lighters, etc.
7.2 STORAGE
Store away from acids. Store away from heat. Store out of direct sunlight.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS
Use with appropriate local exhaust ventilation. Use in an enclosed process area is recommended. Use with functioning spray booth or local exhaust. Use in a well-ventilated area. If exhaust ventilation is not available, use appropriate respiratory protection. Do not use in a confined area or areas with little or no air movement. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment. Do not use in a confined area or areas with little or no air movement. If exhaust ventilation is not adequate, use appropriate respiratory protection. Provide ventilation adequate to control vapor concentrations below recommended exposure limits and/or control spray or mist.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/face Protection
Avoid eye contact with vapors, mists, or spray.
The following eye protection(s) are recommended: Safety Glasses with side shields.

8.2.2 Skin Protection
Avoid skin contact.
Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials. Gloves made from the following material(s) are recommended: Polymer laminate.

8.2.3 Respiratory Protection
Avoid breathing of vapors, mists or spray. An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors
For questions about suitability for a specific application, consult with your respirator manufacturer.

8.2.4 Prevention of Swallowing
Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Authority</th>
<th>Type</th>
<th>Limit</th>
<th>Additional Information</th>
</tr>
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<td>2,3-DIMETHYLBUTANE</td>
<td>ACGIH</td>
<td>TWA</td>
<td>500 ppm</td>
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<tr>
<td>2,3-DIMETHYL BUTANE</td>
<td>ACGIH</td>
<td>STEL</td>
<td>1000 ppm</td>
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</tr>
<tr>
<td>2-METHYL PENTANE</td>
<td>ACGIH</td>
<td>TWA</td>
<td>500 ppm</td>
<td></td>
</tr>
<tr>
<td>2-METHYL PENTANE</td>
<td>ACGIH</td>
<td>STEL</td>
<td>1000 ppm</td>
<td></td>
</tr>
<tr>
<td>3-METHYL PENTANE</td>
<td>ACGIH</td>
<td>TWA</td>
<td>500 ppm</td>
<td></td>
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<tr>
<td>3-METHYL PENTANE</td>
<td>ACGIH</td>
<td>STEL</td>
<td>1000 ppm</td>
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</tr>
<tr>
<td>ACETONE</td>
<td>ACGIH</td>
<td>TWA</td>
<td>500 ppm</td>
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<tr>
<td>ACETONE</td>
<td>ACGIH</td>
<td>STEL</td>
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<tr>
<td>ACETONE</td>
<td>OSHA</td>
<td>TWA</td>
<td>2400 mg/m3</td>
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### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
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<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td><strong>Specific Physical Form:</strong></td>
<td>Aerosol</td>
</tr>
<tr>
<td><strong>Odor, Color, Grade:</strong></td>
<td>clear, sweet fruity odor</td>
</tr>
<tr>
<td><strong>General Physical Form:</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Autoignition temperature</strong></td>
<td>No Data Available</td>
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<tr>
<td><strong>Flash Point</strong></td>
<td>-42.00 °F [Test Method: Tagliabue Closed Cup]</td>
</tr>
<tr>
<td><strong>Flammable Limits (LEL)</strong></td>
<td>No Data Available</td>
</tr>
<tr>
<td><strong>Flammable Limits (UEL)</strong></td>
<td>No Data Available</td>
</tr>
<tr>
<td><strong>Boiling Point</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Vapor Density</strong></td>
<td>2.97 [Ref Std: AIR=1]</td>
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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Specific Gravity</strong></td>
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<tr>
<td><strong>pH</strong></td>
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<tr>
<td><strong>Melting point</strong></td>
<td>No Data Available</td>
</tr>
<tr>
<td><strong>Solubility in Water</strong></td>
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</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>1.90 [Ref Std: ETHER=1]</td>
</tr>
<tr>
<td><strong>Hazardous Air Pollutants</strong></td>
<td>0.4 % weight [Test Method: Calculated]</td>
</tr>
<tr>
<td><strong>Hazardous Air Pollutants</strong></td>
<td>0.016 lb HAPS/lb solids</td>
</tr>
<tr>
<td><strong>Hazardous Air Pollutants</strong></td>
<td>0.02 lb HAPS/gal [Test Method: Calculated]</td>
</tr>
<tr>
<td><strong>Volatile Organic Compounds</strong></td>
<td>Approximately 51 % [Test Method: calculated SCAQMD rule 443.1]</td>
</tr>
<tr>
<td><strong>Kow - Oct/Water partition coef</strong></td>
<td>No Data Available</td>
</tr>
<tr>
<td><strong>Percent volatile</strong></td>
<td>&lt;=75 % weight</td>
</tr>
<tr>
<td><strong>VOC Less H2O &amp; Exempt Solvents</strong></td>
<td>468 g/l</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

### SECTION 10: STABILITY AND REACTIVITY

* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

**SOURCE OF EXPOSURE LIMIT DATA:**
- ACGIH: American Conference of Governmental Industrial Hygienists
- CMRG: Chemical Manufacturer Recommended Guideline
- OSHA: Occupational Safety and Health Administration
- AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)
Stability: Stable.

Materials and Conditions to Avoid:
10.1 Conditions to avoid
Heat

10.2 Materials to avoid
Not determined

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldehydes</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>During Combustion</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During Combustion</td>
</tr>
</tbody>
</table>

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate uncured product in a permitted hazardous waste incinerator. Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility. The facility should be equipped to handle gaseous waste. Facility must be capable of handling aerosol cans. Dispose of empty product containers in a sanitary landfill. RECYLE EMPTY AEROSOL CONTAINERS WHERE AVAILABLE.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):
MATERIAL SAFETY DATA SHEET  3M(TM) Super 77(TM) Multipurpose Adhesive (Aerosol)    09/07/12


For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS
Contact 3M for more information.

311/312 Hazard Categories:
Fire Hazard - Yes    Pressure Hazard - Yes    Reactivity Hazard - No    Immediate Hazard - Yes    Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>C.A.S. No</th>
<th>% by Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYCLOHEXANE</td>
<td>110-82-7</td>
<td>3 - 7</td>
</tr>
</tbody>
</table>

STATE REGULATIONS
Contact 3M for more information.

CHEMICAL INVENTORIES
The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information.

INTERNATIONAL REGULATIONS
This material contains one or more ingredients that may be regulated by the International Traffic in Arms Regulation (ITAR), an export control of US military technology and chemicals. Prior to export of this material or any product containing this material, determine whether a proper license from the Department of State must be obtained. See 22CFR 120-130 for any specific requirements.

Contact 3M for more information.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification
Health: 2    Flammability: 4    Reactivity: 0    Special Hazards: None
Aerosol Storage Code: 3

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification
Health: 2    Flammability: 4    Reactivity: 0    Protection: X - See PPE section.

Hazardous Material Identification System (HMIS®) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency...
situations. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint and Coatings Association (NPCA).

Revision Changes:
Section 2: Ingredient table was modified.

DISCLAIMER: The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from 3M.

3M USA MSDSs are available at www.3M.com
MATERIAL SAFETY DATA SHEET

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER
17003A00

PRODUCT NAME
ACE® Premium Enamel, Black Flat

MANUFACTURER’S NAME
Mfd. for:
ACE HARDWARE CORPORATION
Oak Brook, IL 60521

Telephone Numbers and Websites

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>(216) 566-2902</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://www.paintdocs.com">www.paintdocs.com</a></td>
<td></td>
</tr>
<tr>
<td>Medical Emergency</td>
<td>(216) 566-2917</td>
</tr>
<tr>
<td>Transportation Emergency*</td>
<td>(800) 424-9300</td>
</tr>
</tbody>
</table>

*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)

SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>% by Weight</th>
<th>CAS Number</th>
<th>Ingredient</th>
<th>Units</th>
<th>Vapor Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>74-98-6</td>
<td>Propane</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>2500 PPM</td>
<td>760 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>1000 PPM</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>106-97-8</td>
<td>Butane</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>800 PPM</td>
<td>760 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>800 PPM</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>108-88-3</td>
<td>Toluene</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>20 PPM</td>
<td>22 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>100 PPM (Skin)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>150 PPM (Skin) STEL</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>67-64-1</td>
<td>Acetone</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>500 PPM</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>750 PPM STEL</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>1000 PPM</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>763-69-9</td>
<td>Ethyl 3-Ethoxypropionate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>14807-96-6</td>
<td>Talc</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>2 mg/m3 as Resp. Dust</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>2 mg/m3 as Resp. Dust</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>471-34-1</td>
<td>Calcium Carbonate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>10 mg/m3 as Dust</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>10 mg/m3 Total Dust</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 mg/m3 Respirable Fraction</td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>1333-86-4</td>
<td>Carbon Black</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>3.5 MG/M3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>3.5 MG/M3</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 3 — HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE
INHALATION of vapor or spray mist.
EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE
EYES: Irritation.
SKIN: Prolonged or repeated exposure may cause irritation.
INHALATION: Irritation of the upper respiratory system.

HMIS Codes
<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2*</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death. Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, cardiovascular and reproductive systems.

**SIGN**S AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists. Redness and itching or burning sensation may indicate eye or excessive skin exposure.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

None generally recognized.

**CANCER INFORMATION**

For complete discussion of toxicology data refer to Section 11.

**SECTION 4 — FIRST AID MEASURES**

**EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.

**SKIN:** Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.

**INHALATION:** If affected, remove from exposure. Restore breathing. Keep warm and quiet.

**INGESTION:** Do not induce vomiting. Get medical attention immediately.

**SECTION 5 — FIRE FIGHTING MEASURES**

**FLASH POINT** Propellant < 0 °F

**LEL** 1.0

**UEL** 12.8

**EXTINGUISHING MEDIA** Carbon Dioxide, Dry Chemical, Foam

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

Containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

**SPECIAL FIRE FIGHTING PROCEDURES**

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

**SECTION 6 — ACCIDENTAL RELEASE MEASURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

* Remove all sources of ignition. Ventilate the area.
* Remove with inert absorbent.

**SECTION 7 — HANDLING AND STORAGE**

**STORAGE CATEGORY** Not Available

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**

Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively. During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition. Consult NFPA Code. Use approved Bonding and Grounding procedures. Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120°F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

**SECTION 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION**

**PRECAUTIONS TO BE TAKEN IN USE**

Use only with adequate ventilation. Avoid contact with skin and eyes. Avoid breathing vapor and spray mist. Wash hands after using. This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), OSHA PEL 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction).

**VENTILATION**

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

**RESPIRATORY PROTECTION**

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2. When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.
PROTECTIVE GLOVES
None required for normal application of aerosol products where minimal skin contact is expected. For long or repeated contact, wear chemical resistant gloves.

EYE PROTECTION
Wear safety spectacles with unperforated sideshields.

OTHER PRECAUTIONS
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT WEIGHT</td>
<td>6.51 lb/gal</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY</td>
<td>0.78</td>
</tr>
<tr>
<td>BOILING POINT</td>
<td>&lt;0 - 342 °F</td>
</tr>
<tr>
<td>MELTING POINT</td>
<td>Not Available</td>
</tr>
<tr>
<td>VOLATILE VOLUME</td>
<td>90%</td>
</tr>
<tr>
<td>EVAPORATION RATE</td>
<td>Faster than ether</td>
</tr>
<tr>
<td>VAPOR DENSITY</td>
<td>Heavier than air</td>
</tr>
<tr>
<td>SOLUBILITY IN WATER</td>
<td>N.A.</td>
</tr>
<tr>
<td>pH</td>
<td>7.0</td>
</tr>
</tbody>
</table>

VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)
Volatile Weight 47.14% Less Water and Federally Exempt Solvents

SECTION 10 — STABILITY AND REACTIVITY

STABILITY — Stable
CONDITIONS TO AVOID
None known.
INCOMPATIBILITY
None known.
HAZARDOUS DECOMPOSITION PRODUCTS
By fire: Carbon Dioxide, Carbon Monoxide
HAZARDOUS POLYMERIZATION
Will not occur

SECTION 11 — TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS
Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.
Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.

TOXICOLOGY DATA

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient Name</th>
<th>LC50 RAT 4HR</th>
<th>LD50 RAT 4HR</th>
<th>LC50 RAT 4HR</th>
<th>LD50 RAT 4HR</th>
<th>LC50 RAT 4HR</th>
<th>LD50 RAT 4HR</th>
<th>LC50 RAT 4HR</th>
<th>LD50 RAT 4HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>74-98-6</td>
<td>Propane</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>106-97-8</td>
<td>Butane</td>
<td></td>
<td></td>
<td>Not Available</td>
<td>Not Available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67-64-1</td>
<td>Acetone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>763-69-9</td>
<td>Ethyl 3-Ethoxypropionate</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>14807-96-6</td>
<td>Talc</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>471-34-1</td>
<td>Calcium Carbonate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1333-86-4</td>
<td>Carbon Black</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 12 — ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION
No data available.

SECTION 13 — DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD
Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers. Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

SECTION 14 — TRANSPORT INFORMATION

US Ground (DOT)
May be classed as Consumer Commodity, ORM-D
UN1950, AEROSOLS, 2.1, LIMITED QUANTITY, (ERG#126)

Canada (TDG)
May be classed as Consumer Commodity, ORM-D
UN1950, AEROSOLS, CLASS 2.1, LIMITED QUANTITY, (ERG#126)

IMO
May be shipped as Limited Quantity
UN1950, AEROSOLS, CLASS 2.1, LIMITED QUANTITY, EmS F-D, S-U

SECTION 15 — REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>CHEMICAL/COMPOUND</th>
<th>% by WT</th>
<th>% Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

CALIFORNIA PROPOSITION 65
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION
All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

SECTION 16 — OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.
Material Safety Data Sheet

Essence Interior Flat Latex Wall Paint

1. Product and company identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>Essence Interior Flat Latex Wall Paint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material uses</td>
<td>Coatings: Waterborne paint.</td>
</tr>
<tr>
<td>Code</td>
<td>184A100, 120, 129, 310, 320, 330</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Ace Hardware Paint Division</td>
</tr>
<tr>
<td></td>
<td>21901 South Central Avenue,</td>
</tr>
<tr>
<td></td>
<td>Matteson, IL 60443-2800</td>
</tr>
<tr>
<td></td>
<td>Phone #: (800) 311-8324</td>
</tr>
<tr>
<td>Supplier</td>
<td>Ace Hardware Corporation</td>
</tr>
<tr>
<td></td>
<td>2200 Kensington Court,</td>
</tr>
<tr>
<td></td>
<td>Oak Brook, IL 60523-2100</td>
</tr>
<tr>
<td></td>
<td>(800) 311-8324</td>
</tr>
<tr>
<td>Validation date</td>
<td>1/25/2012</td>
</tr>
<tr>
<td>Prepared by</td>
<td>Atrion Regulatory Services, Inc.</td>
</tr>
<tr>
<td>In case of emergency</td>
<td>Infotrac (800) 535-5053</td>
</tr>
<tr>
<td></td>
<td>Outside USA (352) 323-3500</td>
</tr>
</tbody>
</table>

2. Hazards identification

| Physical state        | Liquid.                                 |
| Color                 | Various                                 |
| Odor                  | Characteristic.                         |

Emergency overview

| Hazard statements     | MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CAN CAUSE CANCER. BIRTH DEFECT HAZARD - CAN CAUSE BIRTH DEFECTS. DEVELOPMENTAL HAZARD - CAN CAUSE ADVERSE DEVELOPMENTAL EFFECTS. |
| Precautions           | Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not get on skin or clothing. Avoid contact with eyes. Avoid exposure during pregnancy. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling. |
| OSHA/HCS status       | This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). |
| Routes of entry       | Dermal contact. Eye contact. Inhalation. Ingestion. |

Potential acute health effects

| Inhalation            | Slightly irritating to the respiratory system. |
| Ingestion             | No known significant effects or critical hazards. |
| Skin                  | Slightly irritating to the skin. |
| Eyes                  | Slightly irritating to the eyes. |

Potential chronic health effects

| Chronic effects       | Contains material that may cause target organ damage, based on animal data. |
| Carcinogenicity       | Can cause cancer. Risk of cancer depends on duration and level of exposure. |
| Mutagenicity          | No known significant effects or critical hazards. |
| Teratogenicity        | Can cause birth defects. |
| Developmental effects | Can cause developmental abnormalities. |

Fertility effects | No known significant effects or critical hazards. |
2. Hazards identification

Target organs: Contains material which may cause damage to the following organs: kidneys, lungs, upper respiratory tract, skin, eyes, testes.

Over-exposure signs/symptoms

Inhalation: Adverse symptoms may include the following:
- Respiratory tract irritation
- Coughing

Ingestion: No specific data.

Skin: Adverse symptoms may include the following:
- Irritation
- Redness

Eyes: Adverse symptoms may include the following:
- Irritation
- Watering
- Redness

Medical conditions aggravated by over-exposure: Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

3. Composition/information on ingredients

United States

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>10-30</td>
</tr>
<tr>
<td>Limestone</td>
<td>1317-65-3</td>
<td>5-10</td>
</tr>
<tr>
<td>Silica, amorphous - diatomaceous earth</td>
<td>61790-53-2</td>
<td>1-5</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>1-5</td>
</tr>
<tr>
<td>Palygorskite</td>
<td>12174-11-7</td>
<td>0.1-1</td>
</tr>
</tbody>
</table>

Canada

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
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</tr>
<tr>
<td>Limestone</td>
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</tr>
<tr>
<td>Silica, amorphous - diatomaceous earth</td>
<td>61790-53-2</td>
<td>1-5</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>1-5</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>107-21-1</td>
<td>0.1-1</td>
</tr>
<tr>
<td>Palygorskite</td>
<td>12174-11-7</td>
<td>0.1-1</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

Skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

Inhalation: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
4. First aid measures

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Notes to physician: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product: In a fire or if heated, a pressure increase will occur and the container may burst.

Extinguishing media:
- Suitable: Use an extinguishing agent suitable for the surrounding fire.
- Not suitable: None known.

Special exposure hazards: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous thermal decomposition products: Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- metal oxide/oxides

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up:
- Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

- Large spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.
7. Handling and storage

Handling

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

United States

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>ACGIH TLV (United States, 2/2010). TWA: 10 mg/m³ 8 hour(s). OSHA PEL 1989 (United States, 3/1989). TWA: 10 mg/m³ 8 hour(s). Form: Total dust OSHA PEL (United States, 6/2010). TWA: 15 mg/m³ 8 hour(s). Form: Total dust OSHA PEL 1989 (United States, 3/1989). TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction TWA: 15 mg/m³ 8 hour(s). Form: Total dust NIOSH REL (United States, 6/2009). TWA: 5 mg/m³ 10 hour(s). Form: Respirable fraction TWA: 10 mg/m³ 10 hour(s). Form: Total OSHA PEL (United States, 6/2010). TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction TWA: 15 mg/m³ 8 hour(s). Form: Total dust</td>
</tr>
<tr>
<td>Silica, amorphous - diatomaceous earth</td>
<td>OSHA PEL 1989 (United States, 3/1989). TWA: 6 mg/m³ 8 hour(s). OSHA PEL Z3 (United States, 9/2005). TWA: 20 mppcf 8 hour(s). NIOSH REL (United States, 6/2009). TWA: 6 mg/m³ 10 hour(s). OSHA PEL Z3 (United States, 9/2005). Notes: 80/(%SiO2) TWA: 80 mg/m³ 8 hour(s). OSHA PEL Z3 (United States, 9/2005). Notes: 250/(%SiO2+5) TWA: 250 mppcf 8 hour(s). Form: Respirable OSHA PEL Z3 (United States, 9/2005). Notes: 10/(SiO2+2) TWA: 10 mg/m³ 8 hour(s). Form: Respirable OSHA PEL 1989 (United States, 3/1989). TWA: 0.1 mg/m³, (as quartz) 8 hour(s). Form: Respirable dust ACGIH TLV (United States, 2/2010). TWA: 0.025 mg/m³ 8 hour(s). Form: Respirable fraction NIOSH REL (United States, 6/2009). TWA: 0.05 mg/m³ 10 hour(s). Form: respirable dust OSHA PEL Z3 (United States, 9/2005). Notes: 30/(%SiO2+2) TWA: 30 mg/m³ 8 hour(s). Form: Total dust.</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td></td>
</tr>
</tbody>
</table>

Canada

<table>
<thead>
<tr>
<th>Occupational exposure limits</th>
<th>TWA (8 hours)</th>
<th>STEL (15 mins)</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient</td>
<td>List name</td>
<td>ppm</td>
<td>mg/m³</td>
</tr>
</tbody>
</table>

1/25/2012. United States/Canada
8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (SiO2)</td>
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<td>0.025</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Limestone</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Palygorskite</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>Silica, amorphous - diatomaceous earth</td>
<td>-</td>
<td>-</td>
<td>1.5</td>
<td>50</td>
<td>127</td>
</tr>
</tbody>
</table>

[i] Skin sensitization

Form: [a]Respirable fraction [b]Respirable particulate [c]Respirable [d]Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size–selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 µm at 50 per cent collection efficiency. [e]Respirable dust. [f]Respirable dust [g]Total dust [h]Total dust [i]Total dust. [j]RESPIRABLE FIBRES (other than respirable asbestos fibres): Objects, other than respirable asbestos fibres, longer than 5 µm, having a diameter of less than 3 µm and a ratio of length to diameter of more than 3 :1. [k]Aerosol [l]aerosol [m]Particulate [n]Vapour [o]vapour and mist [p]Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 µm at 50 per cent collection efficiency. [q]The value is for particulate matter containing no asbestos and < 1 per cent crystalline silica.

Notes: [A]Refers to Appendix A -- Carcinogens. See Notice of Intended changes.

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
8. Exposure controls/personal protection

**Hands**
- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Eyes**
- Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

**Skin**
- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Environmental exposure controls**
- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

**Physical state**
- Liquid.

**Flash point**
- Not available.

**Auto-ignition temperature**
- Not available.

**Flammable limits**
- Not available.

**Color**
- Various

**Odor**
- Characteristic.

**pH**
- Not available.

**Boiling/condensation point**
- Not available.

**Melting/freezing point**
- Not available.

**Relative density**
- 1.178 to 1.43

**Density**
- 1.176 to 1.427 g/cm³

**Vapor pressure**
- Not available.

**Vapor density**
- Not available.

**VOC content**
- 0.267 to 0.367 lbs/gal (32 to 44 g/l)

**Odor threshold**
- Not available.

**Evaporation rate**
- Not available.

**Viscosity**
- Not available.

**Solubility**
- Not available.

**LogKow**
- Not available.

10. Stability and reactivity

**Chemical stability**
- The product is stable.

**Conditions to avoid**
- No specific data.

**Incompatible materials**
- Reactive or incompatible with the following materials: oxidizing materials, reducing materials, metals and acids.

**Hazardous decomposition products**
- Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**Possibility of hazardous reactions**
- Under normal conditions of storage and use, hazardous reactions will not occur.

Under normal conditions of storage and use, hazardous polymerization will not occur.
11. Toxicological information

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>TDLo Oral</td>
<td>Rat</td>
<td>60 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>4700 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Chronic toxicity**

Not available.

**Irritation/Corrosion**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Score</th>
<th>Species</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol</td>
<td>Eyes - Mild irritant</td>
<td></td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td></td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td></td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Sensitizer**

Not available.

**Carcinogenicity**

**Classification**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>EPA</th>
<th>NIOSH</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>A4</td>
<td>2B</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Silica, amorphous - diatomaceous earth</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>A2</td>
<td>1</td>
<td>-</td>
<td>+</td>
<td>Proven.</td>
<td>-</td>
</tr>
<tr>
<td>Palygorskite</td>
<td></td>
<td>2B</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Mutagenicity**

Not available.

**Teratogenicity**

Not available.

**Reproductive toxicity**

Not available.

12. Ecological information

**Ecotoxicity**

: No known significant effects or critical hazards.

**Aquatic ecotoxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>Acute EC50 5.83 mg/L Fresh water</td>
<td>Algae - Pseudokirchneriella subcapitata - Exponential growth phase</td>
<td>72 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 &gt;1000000 ug/L Fresh water</td>
<td>Daphnia - Daphnia magna - &lt;24 hours</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 &gt;10 mg/L Fresh water</td>
<td>Crustaceans - Ceriodaphnia dubia - Neonate - &lt;24 hours</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 5.5 ppm Fresh water</td>
<td>Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) - &lt;24 hours</td>
<td>48 hours</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>Acute LC50 &gt;1000000 ug/L Marine water</td>
<td>Fish - Fundulus heteroclitus</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 &gt;1000000 ug/L Marine water</td>
<td>Crustaceans - Crangon crangon - Adult</td>
<td>48 hours</td>
</tr>
</tbody>
</table>
12. Ecological information

<table>
<thead>
<tr>
<th></th>
<th>Acute LC50 6900000 ug/L Fresh water</th>
<th>Acute LC50 8050000 ug/L Fresh water</th>
<th>Chronic NOEC 11610000 ug/L Fresh water</th>
<th>Chronic NOEC 6090000 ug/L Fresh water</th>
<th>Daphnia - Ceriodaphnia dubia - Neonate</th>
<th>Fish - Pimephales promelas - &lt;=7 days</th>
<th>Daphnia - Ceriodaphnia dubia - &lt;=24 hours</th>
<th>Fish - Pimephales promelas - &lt;=7 days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>48 hours</td>
<td>96 hours</td>
<td>48 hours</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Persistence/degradability
Not available.

13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Classes</th>
<th>PG*</th>
<th>Label</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT Classification</td>
<td>Not regulated.</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>TDG Classification</td>
<td>Not regulated.</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>IMDG Class</td>
<td>Not regulated.</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>IATA-DGR Class</td>
<td>Not regulated.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

PG* : Packing group

15. Regulatory information

United States
HCS Classification: Carcinogen
Target organ effects
15. Regulatory information

U.S. Federal regulations:
- TSCA 4(a) final test rules: Acetaldehyde
- TSCA 8(a) PAIR: Glycols, polyethylene, mono(1,1,3,3-tetramethylbutyl)phenyl) ether; Acetaldehyde
- TSCA 8(a) IUR: Not determined
- United States inventory (TSCA 8b): All components are listed or exempted.
- TSCA 8(d) H and S data reporting: Acetaldehyde

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Limestone; Titanium dioxide; Quartz (SiO2)
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
Limestone: Immediate (acute) health hazard; Titanium dioxide: Immediate (acute) health hazard; Quartz (SiO2): Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 311: Acetaldehyde; Vinyl acetate; ammonia
Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs): Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals): Not listed
DEA List II Chemicals (Essential Chemicals): Not listed

SARA 313
Form R - Reporting requirements: Not applicable.
Supplier notification: Not applicable.

State regulations:
- Massachusetts: The following components are listed: SILICA, CRYSTALLINE, QUARTZ; TITANIUM DIOXIDE; CALCUIUM CARBONATE
- New York: None of the components are listed.
- New Jersey: The following components are listed: SILICA, AMORPHOUS DIATOMACEOUS EARTH; KIESELGUHR; SILICA, QUARTZ; QUARTZ (SiO2); TITANIUM DIOXIDE; TITANIUM OXIDE (TiO2); CALCIUM CARBONATE; LIMESTONE
- Pennsylvania: The following components are listed: QUARTZ (SiO2); TITANIUM OXIDE (TiO2); LIMESTONE

California Prop. 65
WARNING: This product contains a chemical known to the State of California to cause cancer.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Cancer</th>
<th>Reproductive</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
</table>

1/25/2012. United States/Canada 9/11
15. Regulatory information

<table>
<thead>
<tr>
<th>Substance</th>
<th>Australia inventory (AICS)</th>
<th>China inventory (IECSC)</th>
<th>Japan inventory</th>
<th>Korea inventory</th>
<th>New Zealand Inventory of Chemicals (NZIoC)</th>
<th>Philippines inventory (PICCS)</th>
<th>Chemical Weapons Convention List Schedule I Chemicals</th>
<th>Chemical Weapons Convention List Schedule II Chemicals</th>
<th>Chemical Weapons Convention List Schedule III Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (SiO₂)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Palygorskite</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Canada**

**WHMIS (Canada)**: Class D-2A: Material causing other toxic effects (Very toxic).

**Canadian lists**

- **Canadian NPRI**: None of the components are listed.
- **CEPA Toxic substances**: None of the components are listed.
- **Canada inventory**: At least one component is not listed in DSL but all such components are listed in NDSL.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**International regulations**

**International lists**

- **Australia inventory (AICS)**: All components are listed or exempted.
- **China inventory (IECSC)**: All components are listed or exempted.
- **Japan inventory**: Not determined.
- **Korea inventory**: Not determined.
- **New Zealand Inventory of Chemicals (NZIoC)**: All components are listed or exempted.
- **Philippines inventory (PICCS)**: All components are listed or exempted.

**Canadian lists**

- **Chemical Weapons Convention List Schedule I Chemicals**: Not listed
- **Chemical Weapons Convention List Schedule II Chemicals**: Not listed
- **Chemical Weapons Convention List Schedule III Chemicals**: Not listed

16. Other information

**Label requirements**

MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CAN CAUSE CANCER. BIRTH DEFECT HAZARD - CAN CAUSE BIRTH DEFECTS. DEVELOPMENTAL HAZARD - CAN CAUSE ADVERSE DEVELOPMENTAL EFFECTS.

**Hazardous Material Information System (U.S.A.)**

- **Health**: 1
- **Flammability**: 0
- **Physical hazards**: 0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

**National Fire Protection Association (U.S.A.)**
16. Other information

Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Date of issue : 1/25/2012.
Date of previous issue : No previous validation.
Version : 1
Indicates information that has changed from previously issued version.

Notice to reader
To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.
Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER  HMIS CODES
11655

PRODUCT NAME
ACE® Gold Plate Paint, Gold

MANUFACTURER'S NAME
Mfd. for:
ACE HARDWARE CORPORATION
Oak Brook, IL 60521

DATE OF PREPARATION
19-AUG-07

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT  CAS No.  INGREDIENT  UNITS  VAPOR PRESSURE

16  74-98-6  Propane
    ACGIH TLV  2500  ppm  760 mm
    OSHA PEL  1000  ppm

16  106-97-8  Butane
    ACGIH TLV  800  ppm  760 mm
    OSHA PEL  800  ppm

38  108-88-3  Toluene
    ACGIH TLV  20  ppm  22 mm
    OSHA PEL  100  ppm (Skin)
    OSHA PEL  150  ppm (Skin) STEL

14  67-64-1  Acetone
    ACGIH TLV  500  ppm  180 mm
    ACGIH TLV  750  ppm STEL
    OSHA PEL  1000  ppm

5  Proprietary  Bronze Pigment
    ACGIH TLV  Not Available
    OSHA PEL  Not Available

Section 3 -- HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE
INHALATION of vapor or spray mist.
EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE
EYES:  Irritation.
SKIN:  Prolonged or repeated exposure may cause irritation.
INHALATION:  Irritation of the upper respiratory system.
May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

Continued on page 2
SIGNS AND SYMPTOMS OF OVEREXPOSURE
   Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
   Redness and itching or burning sensation may indicate eye or excessive skin exposure.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
   None generally recognized.
CANCER INFORMATION
   For complete discussion of toxicology data refer to Section 11.

Section 4 -- FIRST AID MEASURES

EYES:  Flush eyes with large amounts of water for 15 minutes. Get medical attention.
SKIN:  Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.
INHALATION:  If affected, remove from exposure. Restore breathing. Keep warm and quiet.
INGESTION:  Do not induce vomiting. Get medical attention immediately.

Section 5 -- FIRE FIGHTING MEASURES

FLASH POINT LEL UEL
Propellant < 0 F 1.0 12.8

EXTINGUISHING MEDIA
   Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS
   Containers may explode when exposed to extreme heat.
   Application to hot surfaces requires special precautions.
   During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES
   Full protective equipment including self-contained breathing apparatus should be used.
   Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
   Remove all sources of ignition. Ventilate the area.
   Remove with inert absorbent.

Section 7 -- HANDLING AND STORAGE

STORAGE CATEGORY
   Not Available

Continued on page 3
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.
Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.
Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), OSHA PEL 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction).

Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

None required for normal application of aerosol products where minimal skin contact is expected. For long or repeated contact, wear chemical resistant gloves.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Continued on page 4
Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT 6.29 lb/gal  753 g/l
SPECIFIC GRAVITY 0.76
BOILING POINT <0 - 238 F  <-18 - 114 C
MELTING POINT Not Available
VOLATILE VOLUME 92 %
EVAPORATION RATE Faster than ether
VAPOR DENSITY Heavier than air
SOLUBILITY IN WATER N.A.
pH 7.0
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)
Volatile Weight 70.03% Less Water and Federally Exempt Solvents

Section 10 -- STABILITY AND REACTIVITY

STABILITY -- Stable
CONDITIONS TO AVOID None known.
INCOMPATIBILITY None known.
HAZARDOUS DECOMPOSITION PRODUCTS
By fire: Carbon Dioxide, Carbon Monoxide
HAZARDOUS POLYMERIZATION
Will not occur

Section 11 -- TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS
No ingredient in this product is an IARC, NTP or OSHA listed carcinogen. Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, cardiovascular and reproductive systems. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient Name</th>
<th>LC50</th>
<th>LD50</th>
<th>Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>74-98-6</td>
<td>Propane</td>
<td>RAT</td>
<td>RAT</td>
<td>4HR</td>
</tr>
<tr>
<td>106-97-8</td>
<td>Butane</td>
<td>RAT</td>
<td>RAT</td>
<td>4HR</td>
</tr>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>RAT</td>
<td>RAT</td>
<td>4HR</td>
</tr>
<tr>
<td>67-64-1</td>
<td>Acetone</td>
<td>RAT</td>
<td>RAT</td>
<td>4HR</td>
</tr>
<tr>
<td>Proprietary Bronze Pigment</td>
<td>LC50</td>
<td>LD50</td>
<td>RAT</td>
<td>4HR</td>
</tr>
</tbody>
</table>

Continued on page 5
ECOTOXICOLOGICAL INFORMATION
No data available.

WASTE DISPOSAL METHOD
Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.
Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.
Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

US Ground (DOT)
May be classed as Consumer Commodity, ORM-D
UN1950, AEROSOLS, 2.1, LIMITED QUANTITY, (ERG#126)

Canada (TDG)
May be classed as Consumer Commodity, ORM-D
UN1950, AEROSOLS, CLASS 2.1, LIMITED QUANTITY, (ERG#126)

IMO
May be shipped as Limited Quantity
UN1950, AEROSOLS, CLASS 2, LIMITED QUANTITY, EmS F-D, S-U

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>CHEMICAL/COMPOUND</th>
<th>% by WT</th>
<th>% Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Copper</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

CALIFORNIA PROPOSITION 65
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION
All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

Continued on page 6
The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.
Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER                  DATE OF PREPARATION        HMIS CODES
17028                            01-SEP-07                   Health          2*
                                   Flammability             3
                                   Reactivity              0

PRODUCT NAME
ACE® Instant Drying Lacquer, Gloss Black

MANUFACTURER'S NAME
Mfd. for:
ACE HARDWARE CORPORATION
Oak Brook, IL 60521

TELEPHONE NUMBERS and WEBSITES
Regulatory Information
(216) 566-2902         www.paintdocs.com
Medical Emergency
(216) 566-2917
Transportation Emergency      for Chemical Emergency ONLY (spill, leak,
(800) 424-9300             fire, exposure, or accident)

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT  CAS No.  INGREDIENT       UNITS   VAPOR PRESSURE

11   74-98-6     Propane
     ACGIH TLV 2500 ppm
     OSHA PEL   1000 ppm
     760 mm

11   106-97-8    Butane
     ACGIH TLV 800 ppm
     OSHA PEL   800 ppm
     760 mm

2    64742-89-8  V. M. & P. Naphtha
     ACGIH TLV 300 ppm
     OSHA PEL   300 ppm
     OSHA PEL   400 ppm STEL
     12 mm

3    108-88-3    Toluene
     ACGIH TLV 20 ppm
     OSHA PEL   100 ppm (Skin)
     OSHA PEL   150 ppm (Skin) STEL
     22 mm

1    100-41-4    Ethylbenzene
     ACGIH TLV 100 ppm
     ACGIH TLV 125 ppm STEL
     OSHA PEL   100 ppm
     OSHA PEL   125 ppm STEL
     7.1 mm

6    1330-20-7   Xylene
     ACGIH TLV 100 ppm
     ACGIH TLV 150 ppm STEL
     OSHA PEL   100 ppm
     OSHA PEL   150 ppm STEL
     5.9 mm

Continued on page 2
<table>
<thead>
<tr>
<th></th>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>67-63-0</td>
<td>2-Propanol</td>
<td>400 ppm</td>
<td>500 ppm</td>
<td>STEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>33 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>123-42-2</td>
<td>Diacetone Alcohol</td>
<td>50 ppm</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.2 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>111-76-2</td>
<td>2-Butoxyethanol</td>
<td>20 ppm</td>
<td>25 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.88 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>67-64-1</td>
<td>Acetone</td>
<td>500 ppm</td>
<td>750 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>180 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>78-93-3</td>
<td>Methyl Ethyl Ketone</td>
<td>200 ppm</td>
<td>200 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>70 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>108-10-1</td>
<td>Methyl Isobutyl Ketone</td>
<td>50 ppm</td>
<td>75 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>108-21-4</td>
<td>Isopropyl Acetate</td>
<td>250 ppm</td>
<td>310 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>47.5 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>628-63-7</td>
<td>Amyl Acetate</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>4 mm</td>
<td></td>
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<tr>
<td>0.4</td>
<td>1333-86-4</td>
<td>Carbon Black</td>
<td>3.5 mg/m3</td>
<td>3.5 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

### Section 3 -- HAZARDS IDENTIFICATION

**ROUTES OF EXPOSURE**

- INHALATION of vapor or spray mist.
- EYE or SKIN contact with the product, vapor or spray mist.

**EFFECTS OF OVEREXPOSURE**

- **EYES:** Irritation.
- **SKIN:** Prolonged or repeated exposure may cause irritation.
- **INHALATION:** Irritation of the upper respiratory system.

  May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE**

- Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
- Redness and itching or burning sensation may indicate eye or excessive skin exposure.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE**

- None generally recognized.

Continued on page 3
CANCER INFORMATION
For complete discussion of toxicology data refer to Section 11.

Section 4 -- FIRST AID MEASURES

**EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.
**SKIN:** Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.
**INHALATION:** If affected, remove from exposure. Restore breathing. Keep warm and quiet.
**INGESTION:** Do not induce vomiting. Get medical attention immediately.

Section 5 -- FIRE FIGHTING MEASURES

<table>
<thead>
<tr>
<th>FLASH POINT</th>
<th>LEL</th>
<th>UEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propellant &lt; 0 F</td>
<td>0.9</td>
<td>12.8</td>
</tr>
</tbody>
</table>

**EXTINGUISHING MEDIA**
Carbon Dioxide, Dry Chemical, Foam

**UNUSUAL FIRE AND EXPLOSION HAZARDS**
Containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

**SPECIAL FIRE FIGHTING PROCEDURES**
Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section 6 -- ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**
Remove all sources of ignition. Ventilate the area. Remove with inert absorbent.

Section 7 -- HANDLING AND STORAGE

**STORAGE CATEGORY**
Not Available

Continued on page 4
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

Section 8 -- EXPOSURE CONTROLS/PERSOAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.
Avoid contact with skin and eyes. Avoid breathing vapor and spray mist. Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), OSHA PEL 15 mg/m3 (total dust), 5 mg/m3 (respirable fraction).

Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

None required for normal application of aerosol products where minimal skin contact is expected. For long or repeated contact, wear chemical resistant gloves.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Continued on page 5
Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT WEIGHT</td>
<td>6.25 lb/gal 749 g/l</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY</td>
<td>0.75</td>
</tr>
<tr>
<td>BOILING POINT</td>
<td>&lt;0 - 343 F &lt; -18 - 172 C</td>
</tr>
<tr>
<td>MELTING POINT</td>
<td>Not Available</td>
</tr>
<tr>
<td>VOLATILE VOLUME</td>
<td>91 %</td>
</tr>
<tr>
<td>EVAPORATION RATE</td>
<td>Faster than ether</td>
</tr>
<tr>
<td>VAPOR DENSITY</td>
<td>Heavier than air</td>
</tr>
<tr>
<td>SOLUBILITY IN WATER</td>
<td>N.A.</td>
</tr>
<tr>
<td>pH</td>
<td>7.0</td>
</tr>
<tr>
<td>VOLATILE ORGANIC COMPOUNDS (VOC</td>
<td>55.41% Less Water and</td>
</tr>
<tr>
<td>Theoretical - As Packaged)</td>
<td>Federally Exempt Solvents</td>
</tr>
</tbody>
</table>

Section 10 -- STABILITY AND REACTIVITY

STABILITY -- Stable
CONDITIONS TO AVOID
None known.
INCOMPATIBILITY
None known.
HAZARDOUS DECOMPOSITION PRODUCTS
By fire: Carbon Dioxide, Carbon Monoxide
HAZARDOUS POLYMERIZATION
Will not occur

Section 11 -- TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS
Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.
Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.
Methyl Ethyl Ketone may increase the nervous system effects of other solvents.
Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, blood forming, cardiovascular and reproductive systems.
Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

TOXICOLOGY DATA

Continued on page 6
### CAS No. | Ingredient Name  | LC50  | LD50  | 4HR  | LD50  |
---|-----------------|-------|-------|------|-------|
74-98-6 | Propane         | Not Available | Not Available | Propane | Not Available | Not Available |
106-97-8 | Butane          | Not Available | Not Available | Butane | Not Available | Not Available |
64742-89-8 | V. M. & P. Naphtha | Not Available | Not Available | V. M. & P. Naphtha | Not Available | Not Available |
108-88-3 | Toluene         | 4000 ppm | 5000 mg/kg | Toluene | 3500 mg/kg | Toluene |
100-41-4 | Ethylbenzene    | Not Available | Not Available | Ethylbenzene | Not Available | Not Available |
1330-20-7 | Xylene          | 5000 ppm | 4300 mg/kg | Xylene | 3500 mg/kg | Xylene |
67-63-0 | 2-Propanol      | Not Available | Not Available | 2-Propanol | 5045 mg/kg | 2-Propanol |
123-42-2 | Diacetone Alcohol | Not Available | Not Available | Diacetone Alcohol | 4000 mg/kg | Diacetone Alcohol |
111-76-2 | 2-Butoxyethanol | Not Available | Not Available | 2-Butoxyethanol | 470 mg/kg | 2-Butoxyethanol |
67-64-1 | Acetone         | Not Available | Not Available | Acetone | 5800 mg/kg | Acetone |
78-93-3 | Methyl Ethyl Ketone | Not Available | Not Available | Methyl Ethyl Ketone | 2740 mg/kg | Methyl Ethyl Ketone |
108-10-1 | Methyl Isobutyl Ketone | Not Available | Not Available | Methyl Isobutyl Ketone | 2080 mg/kg | Methyl Isobutyl Ketone |
108-21-4 | Isopropyl Acetate | Not Available | Not Available | Isopropyl Acetate | 3000 mg/kg | Isopropyl Acetate |
628-63-7 | Amyl Acetate    | Not Available | Not Available | Amyl Acetate | 6500 mg/kg | Amyl Acetate |
1333-86-4 | Carbon Black    | Not Available | Not Available | Carbon Black | Not Available | Carbon Black |

---

**Section 12 -- ECOLOGICAL INFORMATION**

**ECOTOXICOLOGICAL INFORMATION**

No data available.

Continued on page 7
Section 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD
Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.
Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.
Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

Section 14 -- TRANSPORT INFORMATION

US Ground (DOT)
May be classed as Consumer Commodity, ORM-D
UN1950, AEROSOLS, 2.1, LIMITED QUANTITY, (ERG#126)

Canada (TDG)
May be classed as Consumer Commodity, ORM-D
UN1950, AEROSOLS, CLASS 2.1, LIMITED QUANTITY, (ERG#126)

IMO
May be shipped as Limited Quantity
UN1950, AEROSOLS, CLASS 2, LIMITED QUANTITY, EmS F-D, S-U

Section 15 -- REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>CHEMICAL/COMPOUND</th>
<th>% by WT</th>
<th>% Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-88-3</td>
<td>Toluene</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>100-41-4</td>
<td>Ethylbenzene</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Xylene</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>108-10-1</td>
<td>Methyl Isobutyl Ketone</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Glycol Ethers</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

CALIFORNIA PROPOSITION 65
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION
All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

Section 16 -- OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.
Franklin International
MATERIAL SAFETY DATA SHEET

MSDS Name: Ace Project and Repair Adhesive
MSDS Number: 401131

Revision Date: 021507
Page Number: 1 of 5

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ace Project and Repair Adhesive
CAS Number: None
HMIS Hazard Rating: Health: 2 Fire: 3 Reactivity: 0

Company Identification: Franklin International
2020 Bruck Street
Columbus OH 43207

Contact: Franklin Technical Services
Telephone/Fax: (800) 877-4583 (614) 445-1493
Emergency Phone (24 Hour): Franklin Security
(614) 445-1300
Chemtrec (24 Hour): (800) 424-9300
Chemtrec International: (703) 527-3887

Product Class: Solvent based
Product Use: Construction adhesive
Product Code: 53103
Division: Construction Adhesives & Sealants

SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients | CAS Number | Percent
--- | --- | ---
Hexane | 110-54-3 | 20.03

OSHA PELs & ACGIH TLVs are listed in Section 8 where applicable.

SECTION 3 - HAZARD IDENTIFICATION

NOTE:
Repeated and prolonged overexposure to the mixture of solvent(s) listed in Section 2 can result in systemic effects including permanent brain, nervous system, liver, and kidney damage.
Intentional misuse by deliberately concentrating & inhaling the contents may be harmful or fatal.

EMERGENCY OVERVIEW:
Product is beige, medium viscosity mastic with a strong solvent odor.
DANGER: EXTREMELY FLAMMABLE. VAPOR HARMFUL. CONTAINS HEXANE. Vapors can cause flash fire. Vapors may ignite explosively. Prevent buildup of vapors by opening all windows & doors to create cross-ventilation. Keep away from heat, sparks & open flame. Do not smoke. Extinguish all flames & pilot lights. Turn off stoves, heaters & sparking electric motors. Keep away from all sources of ignition until all vapors are gone. Keep container tightly closed when not in use. Avoid prolonged breathing of vapor. KEEP OUT OF THE REACH OF CHILDREN.

ROUTES OF ENTRY:
Ingestion: Yes
Inhalation: Yes
Skin: Yes
Eye: Yes

INHALATION:
Avoid breathing vapor or mists.
May cause headaches and dizziness.
High vapor concentrations are irritating to the nose, throat and lungs and can cause systemic effects.
Vapors can readily accumulate in confined or poorly ventilated areas.

INGESTION:
Avoid swallowing. Do not use internally.
Useful for small quantities.

Pharmaceuticals: Use only under medical supervision.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
Preexisting neurological conditions, skin disorders, and respiratory
disease.
CARCINOGENICITY:
IARC: No
NTP: No
OSHA: No
TARGET ORGANS:
Prolonged or repeated overexposure may cause eye, skin, respiratory
system, central nervous system, and peripheral nervous system damage.

SECTION 4 - FIRST AID MEASURES
Epinephrine and other sympathomimetic drugs may initiate cardiac
arrhythmias (irregular beating) in persons exposed to high
concentrations of hexane (e.g. in enclosed spaces or with deliberate
abuse). If used, monitor heart action closely. Consider use of other
drugs with less arrhythmogenic potential.
INHALATION:
Remove to fresh air. If difficulty persists seek medical attention.
INGESTION:
Call poison control center immediately. Follow their specific
instructions. Do not induce vomiting.
SKIN:
Wash with soap and water. Contact a physician if irritation develops
or persists.
EYE:
Hold eyelids apart and flush with plenty of water for at least 15
minutes. Seek medical attention.

SECTION 5 - FIRE-FIGHTING MEASURES
Flammability Class (OSHA)  IB
Flash Point:  < 0 F
Explosive Range:  Lower explosive limit 1.2%
                 Upper explosive limit 7.5%

Vapors can travel back to the source of ignition.
Flammable liquid. Can form explosive mixtures at temperatures at or
above the flashpoint
EXTINGUISHING MÉDIA:
Use alcohol foam, carbon dioxide, dry chemical, or ABC dry chemical
when fighting fires involving this product.
HAZARDOUS COMBUSTION PRODUCTS:
Carbon monoxide may be released during combustion.
FIRE FIGHTING PROCEDURES:
Can burn in a fire, releasing toxic vapors.
Wear a NIOSH approved self-contained breathing apparatus.

SECTION 6 - ACCIDENTAL RELEASE MEASURES
CONTAINMENT TECHNIQUES:
Use inert absorbent to dike the spill. Keep away from drains.
CLEAN-UP:
If possible pump liquid into an approved container or spread absorbent
over spill and shovel (use non-sparking equipment) product/ absorbent
mixture into an approved container. If product has dried, scrape up
and place in an approved container.
EMERGENCY MEASURES:
Isolate hazard area. Keep unnecessary and unprotected personnel from
entering area. Wear all appropriate personal protection equipment (PPE) (see Section 8).
Use only in well ventilated area.
Follow all MSDS/label precautions even after container is emptied.
Containers may retain product residues and vapors.
Avoid prolonged or repeated contact with the skin.
STORAGE:
Keep away from sources of ignition.
Do not store above 110°F. Store large quantities in buildings designed & protected for storage of NFPA Class 1-B flammable materials.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION
Occupational Exposure Limits

<table>
<thead>
<tr>
<th></th>
<th>ACGIH TLV</th>
<th>ACGIH TLV-C</th>
<th>ACGIH STEL</th>
<th>OSHA STEL</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>hexane</td>
<td>50.00 PPM</td>
<td>N/est</td>
<td>N/est</td>
<td>N/est</td>
<td>500.00 PPM</td>
</tr>
</tbody>
</table>

ENGINEERING CONTROLS:
Use local exhaust as needed to maintain occupational exposure limits.
Maintain standard plant ventilation.

OTHER:
Facilities storing or utilizing any chemical should be equipped with an eyewash facility and a safety shower.

RESPIRATORY PROTECTION:
Where exposure limits may be exceeded select a NIOSH approved respirator with appropriate Protection Factor and cartridge for the specific contaminants. Follow requirements for respiratory protection in OSHA 1910.134.

EYE PROTECTION:
Chemical splash goggles (ANSI Z87.1 or approved equivalent).

SKIN PROTECTION:
Where skin contact can occur, wear impervious gloves.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES
Form: medium viscosity mastic
Appearance/Color: beige
Odor: mild solvent odor
Solubility (in water): nil
pH Value: Not Applicable
Boiling Range/Point: 163.0°F
Evaporation Rate: Faster than n-Butyl Acetate
% Volatile: 20.39%
Specific Gravity: 1.26
VOC: 247 g/l

SECTION 10 - STABILITY AND REACTIVITY
Stability: This product is stable
Hazardous Polymerization: Hazardous polymerization will not occur

CONDITIONS TO AVOID:
Heat, sparks, open flame

INCOMPATIBILITY:
Strong oxidizing agents, acids and bases.

HAZARDOUS DECOMPOSITION PRODUCTS:
Not applicable

SECTION 11 - TOXICOLOGICAL INFORMATION
Hexane - Acute:
Ingestion of hexane can cause nausea, vomiting, stomach pain, and diarrhea. Hexane can irritate the skin and the eyes. Acutely, the most common adverse reaction is central nervous system depression.
Franklin International

MATERIAL SAFETY DATA SHEET

MSDS Name: Ace Project and Repair Adhesive
MSDS Number: 401131

Revision Date: 02/10/07
Page Number: 4 of 5

Peripheral nervous system damage (polyneuropathy) are common traits of sustained overexposure.

SECTION 12 - ECOLOGICAL INFORMATION

This formulation has not been tested for environmental effects.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:
Disposal of this product must comply with all applicable federal, state and local regulations.

CONTAINER DISPOSAL:
Disposal of this container should comply with all applicable federal, state and local regulations.

SECTION 14 - TRANSPORT INFORMATION

For any 10.5-ounce size of this product and for all 29-ounce to 1 gallon sizes of this product not shipped by air:

DOT:
UN Number: None
UN Pack Group: Not applicable
UN Class: ORM-D
Shipping Name: Consumer Commodity

AERIAL:
UN Number: ID8000
UN Pack Group: Not applicable
UN Class: 9
ICAO/IATA Class: 9
Shipping Name: Consumer Commodity

MARITIME:
UN Number: UN1133
UN Pack Group: III
UN Class: 3
IMDG Class: Limited Quantity
Shipping Name: Adhesives, containing a Flammable Liquid, Limited Quantity

For air shipments of 29-ounce to 1 gallon sizes of this product or any shipment of this product in a 1 gal to 5 gal container:

UN Number: UN1133
UN Pack Group: III
UN Class: 3
ICAO/IATA Class: 3
IMDG Class: 3
Shipping Name: Adhesives containing a Flammable Liquid

Packaging may not be approved for shipping by air. Please contact Franklin International for further information.

SECTION 15 - REGULATORY INFORMATION

SARA TITLE III SECTION 311:
This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986 and of 40 CFR 372:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>hexane</td>
<td>110-54-3</td>
<td>20.03%</td>
</tr>
</tbody>
</table>

TSCA (Toxic Substances Control Act Inventory):
This product contains the following listed chemicals:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>hexane</td>
<td>110-54-3</td>
<td>20.03%</td>
</tr>
</tbody>
</table>
hexane; hexane; 110-54-3
Non-hazardous components required to be listed at 3% or more:
styrene-butadiene rubber 9003-55-8; polymerized rosin 65997-05-9;
polystyrene hydrocarbon resin 68527-25-3
NEW JERSEY:
clay 1332-58-7; petroleum hydrocarbon resin 68527-25-3; styrene-
butadiene rubber 9003-55-8; polymerized rosin 65997-05-9;
hexane 110-54-3

SECTION 16 - OTHER INFORMATION

DISCLAIMER:
While the information and recommendations set forth herein are
believed to be accurate as of the date hereof, Franklin International
makes no warranty, express or implied, with respect thereto and
disclaims all liability from reliance thereon.
# Material Safety Data Sheet

**ACE PAINT THINNER**

## 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Code:</th>
<th>ACE1677</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name:</td>
<td>ACE PAINT THINNER</td>
</tr>
<tr>
<td>Reference #:</td>
<td>ACE1677</td>
</tr>
</tbody>
</table>

**Manufacturer Information**

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>W. M. Barr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone Number:</td>
<td>(901)775-0100</td>
</tr>
<tr>
<td>Emergency Contact:</td>
<td>3E 24 Hour Emergency Contact (800)451-8346</td>
</tr>
<tr>
<td>Information:</td>
<td>W.M. Barr Customer Service (800)398-3892</td>
</tr>
<tr>
<td>Web site address:</td>
<td><a href="http://www.wmbarr.com">www.wmbarr.com</a></td>
</tr>
</tbody>
</table>

## 2. Composition/Information on Ingredients

### Hazardous Components (Chemical Name)

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Concentration</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stoddard solvent (Mineral spirits; Aliphatic Petroleum Distillates; White spirits)</td>
<td>8052-41-3</td>
<td>95.0 -100.0 %</td>
<td>500 ppm</td>
<td>100 ppm</td>
</tr>
<tr>
<td>2. 1,2,4-Trimethylbenzene (Pseudocumene)</td>
<td>95-63-6</td>
<td>1.0 -2.0 %</td>
<td>200 ppm</td>
<td>50 ppm</td>
</tr>
<tr>
<td>3. Raffinates (petroleum), sorption process</td>
<td>64741-85-1</td>
<td>95.0 -100.0 %</td>
<td>1000 ppm</td>
<td>500 ppm</td>
</tr>
</tbody>
</table>

### Hazardous Components (Chemical Name)

<table>
<thead>
<tr>
<th>CAS #</th>
<th>OSHA STEL</th>
<th>OSHA CEIL</th>
<th>ACGIH STEL</th>
<th>ACGIH CEIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stoddard solvent (Mineral spirits; Aliphatic Petroleum Distillates; White spirits)</td>
<td>8052-41-3</td>
<td>No data.</td>
<td>No data.</td>
<td>250 ppm</td>
</tr>
<tr>
<td>2. 1,2,4-Trimethylbenzene (Pseudocumene)</td>
<td>95-63-6</td>
<td>500 ppm/(10min)</td>
<td>300 ppm</td>
<td>No data.</td>
</tr>
<tr>
<td>3. Raffinates (petroleum), sorption process</td>
<td>64741-85-1</td>
<td>No data.</td>
<td>No data.</td>
<td>750 ppm</td>
</tr>
</tbody>
</table>

## 3. Hazards Identification

### Emergency Overview

Caution! Combustible. Keep away from heat, sparks, flame and all other sources of ignition. Vapors may cause fire. Vapors may travel long distances to other areas and rooms away from work site. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and all other sources of ignition anywhere in the structure, dwelling or building during use and until all vapors are gone from work site and all areas away from work site. Keep away from electrical outlets and switches. Beware of static electricity that may be generated by synthetic clothing and other sources.

**OSHA Regulatory Status:**

This material is classified as hazardous under OSHA regulations.

### Health Hazards (Acute and Chronic)

**Inhalation Acute Exposure Effects:**

May cause dizziness; headache; watering of eyes; eye irritation; weakness; nausea; muscle twitches, and depression of central nervous system. Severe overexposure may cause convulsions; unconsciousness; and death. Intentional misuse of this product by deliberately concentrating and inhaling can be harmful or fatal.

**Skin Contact Acute Exposure Effects:**

May cause irritation; numbness in the fingers and arms; drying of skin; and dermatitis. May cause increased severity of symptoms listed under inhalation.

**Eye Contact Acute Exposure Effects:**

This material is an eye irritant. May cause irritation; burns; conjunctivitis of eyes; and corneal ulcerations of the
eye. Vapors may irritate eyes.

Ingestion Acute Exposure Effects:
Harmful or fatal if swallowed. May cause nausea; weakness; muscle twitches; gastrointestinal irritation; and diarrhea. Severe overexposure may cause convulsions; unconsciousness; and death.

Chronic Exposure Effects:
Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Prolonged or repeated contact may cause dermatitis. May cause jaundice; bone marrow damage; liver damage; anemia; and skin irritation.

Signs and Symptoms Of Exposure
Inhalation, ingestion, and dermal are possible routes of exposure.

Medical Conditions Generally Aggravated By Exposure
Diseases of the skin, eyes, liver, kidneys, central nervous system and respiratory system.

4. First Aid Measures

Emergency and First Aid Procedures
Inhalation:
If user experiences breathing difficulty, move to air free of vapors, Administer oxygen or artificial medical assistance can be rendered.

Skin Contact:
Wash with soap and large quantities of water and seek medical attention if irritation from contact persists.

Eye Contact:
Flush with large quantities of water for at least 15 minutes and seek immediate medical attention.

Ingestion:
Do not induce vomiting. Call your local poison control center, hospital emergency room or physician immediately for instructions to induce vomiting.

Note to Physician
Call your local poison control center for further information.

5. Fire Fighting Measures

Flammability Classification: Class II
Flash Pt: 105.00 F Method Used: Unknown
Explosive Limits: LEL: 1.00 UEL: No data.

Special Fire Fighting Procedures
Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

Unusual Fire and Explosion Hazards
No data available.

Extinguishing Media
Use carbon dioxide, dry powder, or foam.

Unsuitable Extinguishing Media
No data available.
6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled

Clean up:

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area.

Small spills:

Take up with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable.

Large spills:

Dike far ahead of spill for later disposal.

Waste Disposal:

Dispose in accordance with applicable local, state and federal regulations.

7. Handling and Storage

Precautions To Be Taken in Handling

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

Precautions To Be Taken in Storing

Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near flames or at elevated temperatures.

8. Exposure Controls/Personal Protection

Respiratory Equipment (Specify Type)

For OSHA controlled work place and other regular users. Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV. For occasional use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors. A dust mask does not provide protection against vapors.

Eye Protection

Safety glasses, goggles or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn while working with chemicals.

Protective Gloves

Wear impermeable gloves. Gloves contaminated with product should be discarded. Promptly remove clothing that becomes soiled with product.

Other Protective Clothing

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure. A source of clean water should be available in the work area for flushing eyes and skin. Do not eat, drink, or smoke in the work area. Wash hands thoroughly after use. Before reuse, thoroughly clean any clothing or protective equipment that has been contaminated by prior use. Discard any clothing or other protective equipment that cannot be decontaminated, such as gloves or shoes.

Ventilation

Use only with adequate ventilation to prevent build-up of vapors. Open all windows and doors. Use only with a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea, or eye-watering - Stop - ventilation is inadequate. Leave area immediately.
9. Physical and Chemical Properties

- **Physical States:** [ ] Gas  [X] Liquid  [ ] Solid
- **Melting Point:** No data.
- **Boiling Point:** > 310.00 F
- **Autoignition Pt:** No data.
- **Flash Pt:** 105.00 F  Method Used: Unknown
- **Explosive Limits:** LEL: 1.00  UEL: No data.
- **Specific Gravity:** No data.
- **Bulk density:** 6.659 LB/GA
- **Vapor Pressure:** No data.
- **Vapor Density:** No data.
- **Evaporation Rate:** No data.
- **Solubility in Water:** No data.
- **Percent Volatile:** 100.0 % by weight.
- **VOC / Volume:** 800.0000 G/L
- **Heat Value:** No data.
- **Particle Size:** No data.
- **Corrosion Rate:** No data.
- **pH:** No data.

**Appearance and Odor**

- Water White / Free and Clear

10. Stability and Reactivity

- **Stability:** Unstable [ ]  Stable [X]
- **Conditions To Avoid - Instability**
  - No data available.
- **Incompatibility - Materials To Avoid**
  - Incompatible with strong oxidizing agents.
- **Hazardous Decomposition Or Byproducts**
  - Decomposition may produce carbon monoxide and carbon dioxide.
- **Hazardous Polymerization:** Will occur [ ]  Will not occur [X]
- **Conditions To Avoid - Hazardous Polymerization**
  - No data available.

11. Toxicological Information

- **Carcinogenicity/Other Information**
  - No data available.

12. Ecological Information

- **Hazardous Components (Chemical Name)**
  - **CAS #**
  - **NTP**
  - **IARC**
  - **ACGIH**
  - **OSHA**

1. Stoddard solvent {Mineral spirits; Aliphatic Petroleum Distillates; White spirits} 8052-41-3 n.a. n.a. n.a. n.a.
2. 1,2,4-Trimethylbenzene {Pseudocumene} 95-63-6 n.a. n.a. n.a. n.a.
3. Raffinates (petroleum), sorption process 64741-85-1 n.a. n.a. n.a. n.a.

- **Carcinogenicity:** NTP? No  IARC Monographs? No  OSHA Regulated? No

- **No data available.**
13. Disposal Considerations

Waste Disposal Method

Dispose in accordance with federal, state, and local regulations.

14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name

No data available.

15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name) | CAS # | Sec.302 (EHS) | Sec.304 RQ | Sec.313 (TRI) | Sec.110
--- | --- | --- | --- | --- | ---
1. Stoddard solvent (Mineral spirits; Aliphatic Petroleum Distillates; White spirits) | 8052-41-3 | No | No | No | 
2. 1,2,4-Trimethylbenzene (Pseudocumene) | 95-63-6 | No | No | Yes | 
3. Raffinates (petroleum), sorption process | 64741-85-1 | No | No | No | 

US EPA CAA, CWA, TSCA

Hazardous Components (Chemical Name) | CAS # | EPA CAA | EPA CWA NPDES | EPA TSCA | CA PROP 65
--- | --- | --- | --- | --- | ---
1. Stoddard solvent (Mineral spirits; Aliphatic Petroleum Distillates; White spirits) | 8052-41-3 | No | | Inventory | 
2. 1,2,4-Trimethylbenzene (Pseudocumene) | 95-63-6 | No | | Inventory, 4 Test | 
3. Raffinates (petroleum), sorption process | 64741-85-1 | No | | Inventory | 

SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:

- **Sec.302:** EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. * indicates 10000 LB TPQ if not volatile.
- **Sec.304:** EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. ** indicates statutory RQ.
- **Sec.313:** EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.
- **Sec.110:** EPA SARA 110 Superfund Site Priority Contaminant List

TSCA (Toxic Substances Control Act) Lists:

- **Inventory:** Chemical Listed in the TSCA Inventory.
- **5A(2):** Chemical Subject to Significant New Rules (SNURS)
- **6A:** Commercial Chemical Control Rules
- **8A:** Toxic Substances Subject To Information Rules on Production
- **8A CAIR:** Comprehensive Assessment Information Rules - (CAIR)
- **8A PAIR:** Preliminary Assessment Information Rules - (PAIR)
- **8C:** Records of Allegations of Significant Adverse Reactions
- **8D:** Health and Safety Data Reporting Rules
- **8D TERM:** Health and Safety Data Reporting Rule Terminations
- **12(b):** Notice of Export

Other Important Lists:

- **CWA NPDES:** EPA Clean Water Act NPDES Permit Chemical
- **CAA HAP:** EPA Clean Air Act Hazardous Air Pollutant
- **CAA ODC:** EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)
- **CA PROP 65:** California Proposition 65

International Regulatory Lists:

**EPA Hazard Categories:**

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:
[ ] Yes [X] No  Acute (immediate) Health Hazard
[ ] Yes [X] No  Chronic (delayed) Health Hazard
[ ] Yes [X] No  Fire Hazard
[ ] Yes [X] No  Sudden Release of Pressure Hazard
[ ] Yes [X] No  Reactive Hazard

16. Other Information

Company Policy or Disclaimer
The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.
Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID: 155.275A117
Product Name: GRTFN I/E LTX ACR POLY SG
Product Use: Paint product.
Print date: 07/Jul/2013
Revision Date: 07/Jul/2013

Company Identification
The Valspar Corporation - Architectural Coatings Division
1191 Wheeling Road
Wheeling, IL 60090

Manufacturer's Phone: 1-847-520-8580

24-Hour Medical Emergency Phone: 1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:
Inhalation
Ingestion
Skin absorption

Eye Contact:

• Moderate eye irritation
• Risk of serious damage to eyes.

Skin Contact:

• Causes skin irritation.
• Dermatitis
• Harmful if absorbed through skin.
• May cause sensitization by skin contact.

Ingestion:

• Irritation of the mouth, throat, and stomach.
Harmful if swallowed.

Inhalation:
- Causes respiratory tract irritation.
- Harmful by inhalation.
- May cause chemical pneumonia.
- May cause pulmonary edema.
- May cause sensitization by inhalation.
- May cause damage to nasal and respiratory passages.

Target Organ and Other Health Effects:
- Cardiac irregularities
- Unconsciousness
- Causes headache, drowsiness or other effects to the central nervous system.
- Kidney injury may occur.

This product contains ingredients that may contribute to the following potential chronic health effects:
- Overexposure may cause nervous system damage.
- Contains formaldehyde which is considered a potential carcinogen by the Occupational Health and Safety Administration.
- Notice: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.
- Possible sensitization.

Teratogens:
- May cause birth defects.

Carcinogens:
- Cancer hazard. Contains material which can cause cancer.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>Approx. Weight %</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-METHYL PYRROLIDONE</td>
<td>1 - 5</td>
<td>1-Methyl-2-pyrrolidone</td>
</tr>
<tr>
<td>ETHYLENE GLYCOL</td>
<td>1 - 5</td>
<td>1,2-Ethanediol</td>
</tr>
<tr>
<td>PROPRIETARY ADDITIVE</td>
<td>1 - 5</td>
<td>PROPRIETARY ADDITIVE</td>
</tr>
<tr>
<td>FORMALDEHYDE</td>
<td>0 - .099</td>
<td>Formaldehyde</td>
</tr>
</tbody>
</table>

If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

Eye Contact:
Remove any contact lenses and open eyes wide apart. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If medical assistance is not immediately available, flush an additional 15 minutes. Get medical attention immediately.

Skin Contact:
Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention, if symptoms develop or persist.

Product ID: 155.275A117
Ingestion:
Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention immediately.

Inhalation:
Move injured person into fresh air and keep person calm under observation. Get medical attention immediately. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Place unconscious person on the side in the recovery position and ensure breathing.

Medical conditions aggravated by exposure:
Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit): 205
Flash point (Celsius): 96
Lower explosive limit (%): 1
Upper explosive limit (%): 15
Autoignition temperature: not determined
Sensitivity to impact: no
Sensitivity to static discharge: Sensitivity to static discharge is not expected.
Hazardous combustion products: See Section 10.

Unusual fire and explosion hazards:
None known.

Extinguishing media:
Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:
Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:
Ventilate the area. Avoid breathing dust or vapor. Use self-containing breathing apparatus or airmask for large spills in a confined area. Wipe, scrape or soak up in an inert material and put in a container for disposal. See section 7, "Handling and Storage", for proper container and storage procedures. Avoid contact with eyes.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:
Keep container closed when not in use. Do not freeze. Since emptied containers may contain product residue, follow all label warnings, even after container is emptied. Do not cut, drill, grind, or weld on or near this container.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment

Eye and face protection:
Wear chemical goggles with splash shields or face shield. Contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of an eye injury in case of exposure.

Skin protection:
Appropriate chemical resistant gloves should be worn.
Other Personnel Protection Data:
To prevent skin contact wear protective clothing covering all exposed areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory Protection:
If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation
Use only in well-ventilated areas. Ensure adequate ventilation, especially in confined areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture.

Exposure Guidelines

OSHA Permissible Exposure Limits (PEL's)

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>TWA (final)</th>
<th>Ceilings limits (final)</th>
<th>Skin designations</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORMALDEHYDE</td>
<td>50-00-0</td>
<td>0 - .099</td>
<td>0.75 ppm TWA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACGIH Threshold Limit Value (TLV's)

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling limits</th>
<th>Skin designations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL</td>
<td>107-21-1</td>
<td>1 - 5</td>
<td></td>
<td></td>
<td>100 mg/m³ Ceiling aerosol only</td>
<td></td>
</tr>
<tr>
<td>PROPRIETARY ADDITIVE</td>
<td></td>
<td>1 - 5</td>
<td></td>
<td>5 mg/m³ TWA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FORMALDEHYDE</td>
<td>50-00-0</td>
<td>0 - .099</td>
<td></td>
<td></td>
<td>0.3 ppm Ceiling</td>
<td></td>
</tr>
</tbody>
</table>

9. PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>Normal for this product type.</td>
</tr>
<tr>
<td>Physical State</td>
<td>liquid</td>
</tr>
<tr>
<td>pH</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>24 mmHg @ 77°F (25°C)</td>
</tr>
<tr>
<td>Vapor density (air = 1.0)</td>
<td>7.4</td>
</tr>
<tr>
<td>Boiling point</td>
<td>212°F (100°C)</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>not determined</td>
</tr>
<tr>
<td>Coefficient of water/oil distr.</td>
<td>not determined</td>
</tr>
<tr>
<td>Density (lbs per US gallon)</td>
<td>8.52</td>
</tr>
<tr>
<td>Evaporation rate (butyl acetate = 1.0):</td>
<td>0.1</td>
</tr>
<tr>
<td>Flash point (Fahrenheit)</td>
<td>205</td>
</tr>
<tr>
<td>Flash point (Celsius)</td>
<td>96</td>
</tr>
<tr>
<td>Lower explosive limit (%)</td>
<td>1</td>
</tr>
<tr>
<td>Upper explosive limit (%)</td>
<td>15</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>not determined</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

| Stability                      | Stable under normal conditions. |
| Conditions to Avoid            | None known.                     |
10. STABILITY AND REACTIVITY

Incompatibility: Avoid water-reactive materials, heat or contact with peroxides or other catalysts.

Hazardous Polymerization: None anticipated.


Sensitivity to static discharge: Sensitivity to static discharge is not expected.

11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>NIOSH - Selected LD50s and LC50s</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-METHYL PYRROLIDONE</td>
<td>872-50-4</td>
<td>1 - 5</td>
<td>2000 mg/kg Dermal LD50 Rabbit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2500 mg/kg Dermal LD50 Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.1 mg/L Inhalation LC50 Rat 4 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3598 mg/kg Oral LD50 Rat</td>
</tr>
<tr>
<td>ETHYLENE GLYCOL</td>
<td>107-21-1</td>
<td>1 - 5</td>
<td>4000 mg/kg Oral LD50 Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>9530 µL/kg Dermal LD50 Rabbit</td>
</tr>
<tr>
<td>PROPRIETARY ADDITIVE</td>
<td></td>
<td>1 - 5</td>
<td>&gt; 31 mg/L Inhalation LC50 Rat 1 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&gt; 7.7 mg/L Inhalation LC50 Rat 4 h</td>
</tr>
<tr>
<td>FORMALDEHYDE</td>
<td>50-00-0</td>
<td>0 - .099</td>
<td>0.578 mg/L Inhalation LC50 Rat 4 h</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>500 mg/kg Oral LD50 Rat</td>
</tr>
</tbody>
</table>

Mutagens/Teratogens/Carcinogens:

Possible mutagen

May cause birth defects.

Cancer hazard. Contains material which can cause cancer.

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>California Prop 65 - Developmental Toxicity</th>
<th>California Prop 65 - Reproductive (Male)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-METHYL PYRROLIDONE</td>
<td>872-50-4</td>
<td>1 - 5</td>
<td>Listed. initial date 6/15/01 - developmental toxicity</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>California Prop 65 - Reproductive (Female)</th>
<th>California Prop 65 - Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORMALDEHYDE</td>
<td>50-00-0</td>
<td>0 - .099</td>
<td>Listed. initial date 1/1/88 - carcinogen</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>IARC Group 1 - Human Evidence</th>
<th>IARC Group 2A - Limited Human Data</th>
<th>IARC Group 2B - Sufficient Animal Data</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>NTP Known Carcinogens</th>
<th>NTP Suspect Carcinogens</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORMALDEHYDE</td>
<td>50-00-0</td>
<td>0 - .099</td>
<td>Reasonably Anticipated To Be A Human Carcinogen</td>
<td></td>
</tr>
</tbody>
</table>
12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

| UN ID Number (msds): | NRPAI N |
| Proper Shipping Name: | PAINT, NOT REGULATED |

U.S Hazmat and/or International DG shipment exceptions

The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):

| Proper shipping name: | NOT REGULATED |

International Maritime Organization (IMO):

| Proper shipping name: | NOT REGULATED |
| Marine Pollutant | No |

15. REGULATORY INFORMATION

**U.S. FEDERAL REGULATIONS:**

<table>
<thead>
<tr>
<th>Ingredient Name CAS-No.</th>
<th>Approx. Weight %</th>
<th>SARA 302</th>
<th>SARA 313</th>
<th>CERCLA RQ in lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-METHYLPIRROLIDONE 872-50-4</td>
<td>1 - 5</td>
<td>Form R reporting required for 1.0% de minimis concentration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHYLENE GLYCOL 107-21-1</td>
<td>1 - 5</td>
<td>Form R reporting required for 1.0% de minimis concentration</td>
<td>5000</td>
<td></td>
</tr>
<tr>
<td>PROPRIETARY ADDITIVE</td>
<td>1 - 5</td>
<td></td>
<td></td>
<td>5000</td>
</tr>
<tr>
<td>FORMALDEHYDE 50-00-0</td>
<td>0 - .099</td>
<td>EPCRA RQ = 100 lb</td>
<td>Form R reporting required for 0.1% de minimis concentration</td>
<td>100</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazard Class:**

| Acute: | yes |
| Chronic: | yes |
| Flammability: | no |
| Reactivity: | no |
U.S. STATE REGULATIONS:

Right to Know:
The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

N-METHYL PYRROLIDONE 872-50-4
PROPRIETARY ADDITIVE Trade Secret
ETHYLENE GLYCOL 107-21-1

Additional Non-Hazardous Materials

PROPRIETARY INGREDIENT Trade Secret
PROPRIETARY RESIN Trade Secret
PROPRIETARY RESIN Trade Secret

California Proposition 65:
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Rule 66 status of product Not photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories

US TSCA Inventory:
All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:
Not all components in this product are listed on the Domestic Substances List.

16. OTHER INFORMATION

HMIS Codes
Health: 2*
Flammability: 0
Reactivity: 1
PPE: X - See Section 8 for Personal Protective Equipment (PPE).

Abbreviations:
OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Product ID: 155.275A117
Disclaimer:
The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

Preparation Information:
Prepared By: Regulatory Affairs Department
Print date: 07/Jul/2013
Revision Date: 07/Jul/2013
## MATERIAL SAFETY DATA SHEET
### SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Royal Gloss Enamel Polyurethane Porch & Floor Bark Brown  
Product Code Identification Number: 245A130  
MSDS Number:  
**GENERAL USE:** Protective Coating  
**PRODUCT DESCRIPTION:** Solvent base alkyd coating, hydrocarbon odor

<table>
<thead>
<tr>
<th>MANUFACTURER'S NAME</th>
<th>DATE PREPARED:</th>
<th>SUPERSEDES:</th>
<th>Page 1 of 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ace Hardware Paint Division</td>
<td>October 27, 2005</td>
<td>November 20, 2004</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADDRESS (NUMBER, STREET, P.O. BOX)</th>
<th>TELEPHONE NUMBER FOR INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>21901 South Central Avenue</td>
<td>(800) 311-8324</td>
</tr>
<tr>
<td>(CITY, STATE AND ZIP CODE)</td>
<td>EMERGENCY TELEPHONE NUMBER</td>
</tr>
<tr>
<td>Matteson, IL 60443-2800</td>
<td>Infotrac (800) 535-5053 Outside USA (352) 323-3500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DISTRIBUTOR'S NAME</th>
<th>TELEPHONE NUMBER FOR INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ace Hardware Corporation</td>
<td>(800) 311-8324</td>
</tr>
<tr>
<td>ADDRESS (NUMBER, STREET, P.O. BOX)</td>
<td>EMERGENCY TELEPHONE NUMBER</td>
</tr>
<tr>
<td>2200 Kensington Court</td>
<td>Infotrac (800) 535-5053 Outside USA (352) 323-3500</td>
</tr>
<tr>
<td>(CITY, STATE AND ZIP CODE)</td>
<td>USA</td>
</tr>
<tr>
<td>Oak Brook, IL 60523-2100</td>
<td>USA</td>
</tr>
</tbody>
</table>

### SECTION 2 - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>HAZARDOUS COMPONENTS</th>
<th>CAS #</th>
<th>% (by weight)</th>
<th>OSHA PEL</th>
<th>ACGIH TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillate, aliphatic</td>
<td>64742-47-8</td>
<td>10 - 30</td>
<td>100</td>
<td>525</td>
</tr>
<tr>
<td>Petroleum distillate, aliphatic</td>
<td>64742-88-7</td>
<td>10 - 30</td>
<td>500</td>
<td>2000</td>
</tr>
</tbody>
</table>

### SECTION 3 - HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**  
Dark brown liquid, potentially hazardous vapors. Flammable as defined by DOT and TDG for Air / Ocean transport. Classified by DOT as Combustible for ground transport in containers less than 120 gallons. Classified as Combustible by OSHA. Can cause serious or fatal complications if swallowed. Can cause eye and skin irritation upon contact. Inhalation of vapors can cause anesthetic effect leading to death in poorly ventilated areas. Hazard symbols for this product - Xn; Risk Phrases - R 10, 20/22, 36/38

**POTENTIAL HEALTH EFFECTS**  
**INHALATION:** High concentrations are irritating to the respiratory tract; may cause headache, dizziness, nausea, vomiting and malaise.

**SKIN:** Brief contact may cause slight irritation; prolonged contact may cause moderate irritation or dermatitis.
MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Royal Gloss Enamel Polyurethane Porch & Floor Bark Brown

SECTION 4 - FIRST AID MEASURES

INHALATION: Remove affected person to fresh air; provide oxygen if breathing is difficult; if affected person is not breathing, administer CPR and seek emergency medical attention.

SKIN: Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.

EYES: Remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention.

INGESTION: DO NOT induce vomiting; if vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs; seek immediate medical attention. Vomiting may be induced only under the supervision of a physician.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT (METHOD USED) 105° F (PMCC)
FLAMMABLE LIMITS LEI: 0.5% UEL: 6.0%
AUTOIGNITION TEMPERATURE: Not determined NFPA CLASS: II

GENERAL HAZARDS: Product is considered combustible. Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide.

EXTINGUISHING MEDIA
Carbon dioxide, water fog, dry chemical, chemical foam

FIRE FIGHTING PROCEDURES
Firefighters must wear full facepiece self-contained breathing apparatus in positive pressure mode. Do not use solid stream of water since stream will scatter and spread fire. Fine water spray can be used to keep fire-exposed containers cool.

UNUSUAL FIRE AND EXPLOSION HAZARDS
Closed containers can explode due to buildup of pressure when exposed to extreme heat. Do not use direct stream of water on pool fires as product may reignite on water surface. Caution - Material is combustible!

HAZARDOUS COMBUSTION PRODUCTS
Smoke, fumes, oxides of carbon

SECTION 6 - ENVIRONMENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: COMBUSTIBLE - Evacuate and ventilate area; remove all sources of sparks, ignition and open flames; confine and absorb into approved absorbent; place material into approved containers for disposal; do not wash to sewer or waterway.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: This material is combustible. It should be stored in tightly closed containers in a cool, well ventilated area. Vapor may form explosive mixtures in air. All sources of ignition should be controlled. This material may be classified as COMBUSTIBLE by DOT unless transported by vessel or aircraft. Refer to 49 CFR 173.120. Keep this and other chemicals out of reach of children. Avoid inhaling concentrated fumes or vapors.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS
The use of local exhaust ventilation is recommended to control emissions near the source. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment. See Section 2 for Component Exposure Guidelines.
### Section 9 - Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure (MM Hg)</td>
<td>3.4 mm Hg @ 20 °C</td>
</tr>
<tr>
<td>Specific Gravity (WATER = 1)</td>
<td>1.043</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Negligible</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>298°F (148° C)</td>
</tr>
<tr>
<td>Viscosity (KREBS)</td>
<td>75 - 80</td>
</tr>
<tr>
<td>Vapour Density (AIR = 1)</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Evaporation Rate (WATER = 1)</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Dark brown viscous liquid, hydrocarbon odor</td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
</tbody>
</table>

### Section 10 - Stability and Reactivity

<table>
<thead>
<tr>
<th>Stability</th>
<th>Conditions to Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstable</td>
<td>Extreme temperatures, open flames</td>
</tr>
<tr>
<td>Stable</td>
<td></td>
</tr>
</tbody>
</table>

### Section 11 - Toxicological Information

<table>
<thead>
<tr>
<th>Hazardous Ingredients</th>
<th>CAS #</th>
<th>EINECS #</th>
<th>LD50 of Ingredient (Specify Species and Route)</th>
<th>LC50 of Ingredient (Specify Species)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillate, aliphatic</td>
<td>64742-47-8</td>
<td>265-149-8</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
<tr>
<td>Petroleum distillate, aliphatic</td>
<td>64742-88-7</td>
<td>265-191-7</td>
<td>Not determined</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

### Section 12 - Ecological Information

No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.

### Section 13 - Disposal Considerations

Waste Disposal Method: Dispose of in accordance with Local, State, and Federal Regulations. This product may produce concentrated hazardous vapors or fumes in a disposal container creating a dangerous environment. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations for ignitable materials. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals. Do not flush to sanitary sewer or waterway.

### Section 14 - Transport Information

No special transportation data available.
SECTION 15 - REGULATORY INFORMATION

TSCA (Toxic substance Control Act)
All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.

SARA TITLE III (Superfund Amendments and Reauthorization Act)
311/312 Hazard Categories
Immediate health, fire hazard

313 Reportable Ingredients:
None

CERCLA (Comprehensive Response Compensation and Liability Act)
None

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986
There are no chemicals present known to the state of California to cause cancer or reproductive toxicity.

CPR (Canadian Controlled Products Regulations)
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. WHMIS Classification: B3

DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)
Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as "hazardous" are listed in Section 2 unless otherwise indicated.

EINECS (European Inventory of Existing Commercial Chemical Substances)
Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

<table>
<thead>
<tr>
<th>EC Risk Phrases</th>
<th>SYMBOL(S) REQUIRED FOR LABEL</th>
<th>EC Safety Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>R10 Flammable</td>
<td>Harmful</td>
<td>S23 Do not breathe vapor</td>
</tr>
<tr>
<td>R20/22 Harmful by inhalation and if swallowed.</td>
<td></td>
<td>S25 Avoid contact with eyes</td>
</tr>
<tr>
<td>R36/38 Irritating to eyes and skin.</td>
<td></td>
<td>S28 After contact with skin, wash immediately with plenty of soap and water.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S29 Do not empty into drains</td>
</tr>
</tbody>
</table>

SECTION 16 - OTHER INFORMATION

No specific notes.

HMIS HAZARD RATINGS

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 * = Chronic Health Hazard</td>
<td>2 = MODERATE</td>
<td>0 = INSIGNIFICANT</td>
</tr>
<tr>
<td>2 = MODERATE</td>
<td>3 = HIGH</td>
<td>1 = SLIGHT</td>
</tr>
<tr>
<td>0 = INSIGNIFICANT</td>
<td>4 = EXTREME</td>
<td>4 = EXTREME</td>
</tr>
</tbody>
</table>

REVISION SUMMARY:
This MSDS has been revised in the following sections:
Section 14, DOT Classification
1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product ID: 150.102A310
Product Name: C+K I/E HGLS LTX ULTR
Product Use: Paint product.
Print date: 17/Jun/2013
Revision Date: 29/May/2013

Company Identification
The Valspar Corporation - Architectural Coatings Division
1191 Wheeling Road
Wheeling, IL 60090

Manufacturer's Phone: 1-847-520-8580

24-Hour Medical Emergency Phone: 1-888-345-5732

2. HAZARDS IDENTIFICATION

Primary Routes of Exposure:
Inhalation
Ingestion
Skin absorption

Eye Contact:
• May cause eye irritation.

Skin Contact:
• Causes mild skin irritation.

Ingestion:
• Irritation of the mouth, throat, and stomach.
• Harmful if swallowed.

Inhalation:
• Causes respiratory tract irritation.

Target Organ and Other Health Effects:
• Causes headache, drowsiness or other effects to the central nervous system.
• Kidney injury may occur.
• Cardiac irregularities

This product contains ingredients that may contribute to the following potential chronic health effects:
• Overexposure may cause nervous system damage.
• Prolonged exposure over TLV may produce pneumoconiosis.

Teratogens:
• May cause birth defects.

Carcinogens:
• Possible cancer hazard. Contains material which may cause cancer based on animal data.

3. COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>Chemical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>13463-67-7</td>
<td>20 - 25</td>
<td>Titanium dioxide</td>
</tr>
<tr>
<td>PROPRIETARY INERT</td>
<td></td>
<td>1 - 5</td>
<td>PROPRIETARY INERT</td>
</tr>
<tr>
<td>ETHYLENE GLYCOL</td>
<td>107-21-1</td>
<td>1 - 5</td>
<td>1,2-Ethanediol</td>
</tr>
</tbody>
</table>

If this section is blank there are no hazardous components per OSHA guidelines.

4. FIRST AID MEASURES

Eye Contact:
Get medical attention, if symptoms develop or persist. Immediately flush eye(s) with plenty of water.

Skin Contact:
Wash off with plenty of water.

Ingestion:
Rinse mouth with water. Give one or two glasses of water. Only induce vomiting at the instruction of medical personnel. Get medical attention. Never give anything by mouth to an unconscious person.

Inhalation:
Move injured person into fresh air and keep person calm under observation. Get medical attention, if symptoms develop or persist.

Medical conditions aggravated by exposure:
Any respiratory or skin condition.

5. FIRE FIGHTING MEASURES

Flash point (Fahrenheit): 205
Flash point (Celsius): 96
Lower explosive limit (%): 3
Upper explosive limit (%): 15
Autoignition temperature: not determined
Sensitivity to impact: no
5. FIRE FIGHTING MEASURES

Sensitivity to static discharge: Sensitivity to static discharge is not expected.

Hazardous combustion products: See Section 10.

Unusual fire and explosion hazards: None known.

Extinguishing media:
Carbon dioxide, dry chemical, foam and/or water fog.

Fire fighting procedures:
Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Keep containers and surroundings cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled:
Ventilate the area. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Avoid contact with eyes.

7. HANDLING AND STORAGE

Precautions to be taken in handling and storage:
Keep container closed when not in use. Do not freeze. Since emptied containers may contain product residue, follow all label warnings, even after container is emptied. Do not cut, drill, grind, or weld on or near this container.

8. PERSONAL PROTECTIVE EQUIPMENT AND EXPOSURE CONTROLS

Personal Protective Equipment

Eye and face protection:
Wear safety glasses or goggles to protect against exposure.

Skin protection:
Appropriate chemical resistant gloves should be worn.

Other Personel Protection Data:
Usual industrial work clothes.

Respiratory protection:
If exposure cannot be controlled below applicable limits, use the appropriate NIOSH approved respirator such as an air purifying respirator with organic vapor cartridge and dust/mist filter. Consult the respirator manufacturer's literature to ensure that the respirator will provide adequate protection. Read and follow all respirator manufacturer's instructions.

Ventilation
Use only in well-ventilated areas. Ovens used for curing should contain a fresh air purge to prevent vapours from accumulating and creating a possible explosive mixture. Ensure adequate ventilation, especially in confined areas.

Exposure Guidelines

OSHA Permissible Exposure Limits (PEL's)

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>Approx. Weight %</th>
<th>TWA (final)</th>
<th>Ceilings limits (final)</th>
<th>Skin designations</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE 13463-67-7</td>
<td>20 - 25</td>
<td>15 mg/m³ TWA dust total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product ID: 150.102A310
<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>TWA (final)</th>
<th>Ceilings limits (final)</th>
<th>Skin designations</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPRIETARY INERT</td>
<td>1 - 5</td>
<td>5 mg/m³ Respirable fraction. 15 mg/m³ Total dust. Respirable fraction. Listed. Total dust. Listed.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACGIH Threshold Limit Value (TLV's)

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling limits</th>
<th>Skin designations</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>13463-67-7</td>
<td>20 - 25</td>
<td>10 mg/m³ TWA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROPRIETARY INERT</td>
<td>1 - 5</td>
<td>10 mg/m³</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHYLENE GLYCOL</td>
<td>107-21-1</td>
<td>1 - 5</td>
<td></td>
<td></td>
<td>100 mg/m³ Ceiling aerosol only</td>
<td></td>
</tr>
</tbody>
</table>

9. PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor:</td>
<td>Normal for this product type.</td>
</tr>
<tr>
<td>Physical State:</td>
<td>liquid</td>
</tr>
<tr>
<td>pH:</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapor pressure:</td>
<td>24 mmHg @ 77ºF (25ºC)</td>
</tr>
<tr>
<td>Vapor density (air = 1.0):</td>
<td>2.14</td>
</tr>
<tr>
<td>Boiling point:</td>
<td>212ºF (100ºC)</td>
</tr>
<tr>
<td>Solubility in water:</td>
<td>not determined</td>
</tr>
<tr>
<td>Coefficient of water/oil distribution:</td>
<td>not determined</td>
</tr>
<tr>
<td>Density (lbs per US gallon):</td>
<td>10.52</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>1.26</td>
</tr>
<tr>
<td>Evaporation rate (butyl acetate = 1.0):</td>
<td>0.1</td>
</tr>
<tr>
<td>Flash point (Fahrenheit):</td>
<td>205</td>
</tr>
<tr>
<td>Flash point (Celsius):</td>
<td>96</td>
</tr>
<tr>
<td>Lower explosive limit (%):</td>
<td>3</td>
</tr>
<tr>
<td>Upper explosive limit (%):</td>
<td>15</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>not determined</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability:</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>Conditions to Avoid:</td>
<td>None known.</td>
</tr>
<tr>
<td>Incompatibility:</td>
<td>Strong oxidizing agents</td>
</tr>
<tr>
<td>Hazardous Polymerization:</td>
<td>None anticipated.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products:</td>
<td>Carbon monoxide and carbon dioxide. Metal oxide fumes.</td>
</tr>
</tbody>
</table>

Sensitivity to static discharge: Sensitivity to static discharge is not expected.

11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>NIOSH - Selected LD50s and LC50s</th>
</tr>
</thead>
</table>

Product ID: 150.102A310
11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>Oral LD50 Rat</th>
<th>Inhalation LC50 Rat 1 h</th>
<th>Dermal LD50 Rabbit</th>
<th>Oral LD50 Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>13463-67-7</td>
<td>20 - 25</td>
<td>&gt; 10000 mg/kg</td>
<td>&gt; 2.2 mg/L</td>
<td>&gt; 2000 mg/kg</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>PROPRIETARY INERT</td>
<td>1 - 5</td>
<td>&gt; 2.2 mg/L</td>
<td>&gt; 2.2 mg/L</td>
<td>&gt; 2000 mg/kg</td>
<td>&gt; 5000 mg/kg</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>ETHYLENE GLYCOL</td>
<td>107-21-1</td>
<td>1 - 5</td>
<td>&gt; 4000 mg/kg</td>
<td>&gt; 5000 mg/kg</td>
<td>&gt; 9530 µL/kg</td>
<td>&gt; 5000 mg/kg</td>
</tr>
</tbody>
</table>

Mutagens/Teratogens/Carcinogens:

May cause birth defects.

Possible cancer hazard. Contains material which may cause cancer based on animal data.

Contains TIO2 which is listed by IARC as a possible human carcinogen (Group 2B) based on animal data. Neither long term animal studies, nor human epidemiology studies of workers exposed to TIO2 provide an adequate basis to conclude TIO2 is carcinogenic. TIO2 is not classified as a carcinogen by NTP, U.S. OSHA, or the U.S. EPA.

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>IARC Group 1 - Human Evidence</th>
<th>IARC Group 2A - Limited Human Data</th>
<th>IARC Group 2B - Sufficient Animal Data</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>OSHA - Hazard Communication Carcinogens</th>
<th>OSHA - Specifically Regulated Carcinogens</th>
<th>ACGIH Carcinogens</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>13463-67-7</td>
<td>20 - 25</td>
<td>Present</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. ECOLOGICAL DATA

No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation

UN ID Number (msds): NRPAIN
Proper Shipping Name: PAINT, NOT REGULATED

U.S Hazmat and/or International DG shipment exceptions
The supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

Reportable Quantity Description:

International Air Transport Association (IATA):
Proper shipping name: NOT REGULATED

International Maritime Organization (IMO):
Proper shipping name: NOT REGULATED
Marine Pollutant: No

Product ID: 150.102A310
15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS-No.</th>
<th>Approx. Weight %</th>
<th>SARA 302</th>
<th>SARA 313</th>
<th>CERCLA RQ in lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL</td>
<td>107-21-1</td>
<td>1 - 5</td>
<td></td>
<td>Form R reporting required for 1.0% de minimis concentration</td>
<td>5000</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Class:
Acute: yes
Chronic: yes
Flammability: no
Reactivity: no
Sudden Pressure: no

U.S. STATE REGULATIONS:

Right to Know:
The specific chemical identity of a component may be withheld as a trade secret under 34 Pennsylvania Code, Chapter 317.

Pennsylvania Right To Know:

TITANIUM DIOXIDE 13463-67-7
PROPRIETARY INERT Trade Secret
ETHYLENE GLYCOL 107-21-1

Additional Non-Hazardous Materials

PROPRIETARY INGREDIENT Trade Secret
PROPRIETARY RESIN Trade Secret

Rule 66 status of product Not photochemically reactive.

INTERNATIONAL REGULATIONS - Chemical Inventories

US TSCA Inventory:
All components of this product are in compliance with U.S. TSCA Chemical Substance Inventory Requirements.

Canada Domestic Substances List:
Not all components in this product are listed on the Domestic Substances List.

16. OTHER INFORMATION

HMIS Codes
Health: 2*
Flammability: 0
Reactivity: 1
PPE: X - See Section 8 for Personal Protective Equipment (PPE).
Abbreviations:
OSHA - Occupational Safety and Health Administration, IARC - International Agency for Research on Cancer, NIOSH - National Institute of Occupational Safety and Health, NTP - National Toxicology Program, ACGIH - American Conference of Governmental Industrial Hygienists, SCAQMD - South Coast Air Quality Management District, TSCA - Toxic Substances Control Act, IATA - International Air Transport Association, IMO - International Maritime Organization, DOT - Department of Transportation, NA - Not applicable, NOT ESTAB - Not established, N.A.V. - Not available, RQ - Reportable quantity, WT - Weight, MG/CU M - Milligrams per cubic meter, G/L - Grams per liter, MM - Millimeters, MPPCF - Millions of particles per cubic foot, PPM - parts per million, PPT - parts per thousand, TCC/PM - Tag closed cup / Pensky-Martens, PB - Lead, PEL - Permissible exposure level, TWA - Time Weighted Average, STEL - Short term exposure limit, C - Celsius, F - Fahrenheit.

Disclaimer:
The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Valspar assumes no obligation or liability for use of this information. UNLESS VALSPAR AGREES OTHERWISE IN WRITING, VALSPAR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. VALSPAR WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option. This MSDS contains additional information required by the state of Pennsylvania.

Preparation Information:
Prepared By: Regulatory Affairs Department
Print date: 17/Jun/2013
Revision Date: 29/May/2013
1. Product and company identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>Royal Interiors Flat Latex Wall Paint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material uses</td>
<td>Coatings: Waterborne paint.</td>
</tr>
<tr>
<td>Code</td>
<td>183A100, 101, 105, 128, 129, 180, 181, 182, 186, 188, 310, 320, 330, 340</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Ace Hardware Paint Division</td>
</tr>
<tr>
<td></td>
<td>21901 South Central Avenue, Matteson, IL 60443-2800</td>
</tr>
<tr>
<td></td>
<td>Phone #: (800) 311-8324</td>
</tr>
<tr>
<td>Supplier</td>
<td>Ace Hardware Corporation</td>
</tr>
<tr>
<td></td>
<td>2200 Kensington Court, Oak Brook, IL 60523-2100</td>
</tr>
<tr>
<td></td>
<td>(800) 311-8324</td>
</tr>
<tr>
<td>Validation date</td>
<td>10/14/2010.</td>
</tr>
<tr>
<td>Prepared by</td>
<td>Atrion Regulatory Services, Inc.</td>
</tr>
<tr>
<td>In case of emergency</td>
<td>Infotrac (800) 535-5053</td>
</tr>
<tr>
<td></td>
<td>Outside USA (352) 323-3500</td>
</tr>
</tbody>
</table>

2. Hazards identification

- Physical state: Liquid.
- Color: Various
- Odor: Characteristic.

**Emergency overview**

- Signal word: WARNING!
- Hazard statements: CAUSES EYE IRRITATION. MAY CAUSE RESPIRATORY TRACT AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CAN CAUSE CANCER. BIRTH DEFECT HAZARD - CAN CAUSE BIRTH DEFECTS. DEVELOPMENTAL HAZARD - CAN CAUSE ADVERSE DEVELOPMENTAL EFFECTS.

**Precautions**

- Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not get on skin or clothing. Avoid contact with eyes. Avoid exposure during pregnancy. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

**OSHA/HCS status**

- This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Routes of entry**

- Dermal contact. Eye contact. Inhalation. Ingestion.

**Potential acute health effects**

- Inhalation: Slightly irritating to the respiratory system.
- Ingestion: No known significant effects or critical hazards.
- Skin: Slightly irritating to the skin.
- Eyes: Irritating to eyes.

**Potential chronic health effects**

- Chronic effects: Contains material that may cause target organ damage, based on animal data.
- Carcinogenicity: Can cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity: No known significant effects or critical hazards.
- Teratogenicity: Can cause birth defects.
- Developmental effects: Can cause developmental abnormalities.
2. Hazards identification

Fertility effects: No known significant effects or critical hazards.

Target organs: Contains material which may cause damage to the following organs: kidneys, lungs, upper respiratory tract, skin, eyes.

Over-exposure signs/symptoms

Inhalation: Adverse symptoms may include the following:
respiratory tract irritation

coughing

Ingestion: No specific data.

Skin: Adverse symptoms may include the following:
irritation

redness

Eyes: Adverse symptoms may include the following:

pain or irritation

watering

redness

Medical conditions aggravated by over-exposure: Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

3. Composition/information on ingredients

United States

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isobutyric acid, monoester with 2,2,4-trimethylpentane-1,3-diol</td>
<td>25265-77-4</td>
<td>10-30</td>
</tr>
<tr>
<td>Nepheline syenite</td>
<td>37244-96-5</td>
<td>10-30</td>
</tr>
<tr>
<td>Limestone</td>
<td>1317-65-3</td>
<td>10-30</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>10-30</td>
</tr>
<tr>
<td>Ceramic materials and wares, chemicals</td>
<td>66402-68-4</td>
<td>5-10</td>
</tr>
<tr>
<td>Silica, amorphous - diatomaceous earth</td>
<td>61790-53-2</td>
<td>1-5</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>1-5</td>
</tr>
<tr>
<td>Carbon black</td>
<td>1333-86-4</td>
<td>0.1-1</td>
</tr>
<tr>
<td>Palygorskite</td>
<td>12174-11-7</td>
<td>0.1-1</td>
</tr>
</tbody>
</table>

Canada

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nepheline syenite</td>
<td>37244-96-5</td>
<td>10-30</td>
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<td>Limestone</td>
<td>1317-65-3</td>
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<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
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<tr>
<td>Ceramic materials and wares, chemicals</td>
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<td>Silica, amorphous - diatomaceous earth</td>
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<td>1-5</td>
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<td>Quartz (SiO2)</td>
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<td>Ethylene glycol</td>
<td>107-21-1</td>
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</tr>
<tr>
<td>Palygorskite</td>
<td>12174-11-7</td>
<td>0.1-1</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

10/14/2010. United States/Canada 2/11
4. First aid measures

**Eye contact**: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

**Skin contact**: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

**Inhalation**: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.

**Ingestion**: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

**Protection of first-aiders**: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**Notes to physician**: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

**Flammability of the product**: In a fire or if heated, a pressure increase will occur and the container may burst.

**Extinguishing media**

- **Suitable**: Use an extinguishing agent suitable for the surrounding fire.
- **Not suitable**: None known.

**Special exposure hazards**: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Hazardous thermal decomposition products**: Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- metal oxide/oxides

**Special protective equipment for fire-fighters**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

**Personal precautions**: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**Environmental precautions**: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods for cleaning up**

**Small spill**: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
6. Accidental release measures

**Large spill**
Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

**Handling**
Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Storage**
Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

**United States**

Nepheline syenite

- ACGIH TLV (United States).
  TWA: 10 mg/m³ Form: Inhalable
  TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction
  TWA: 15 mg/m³ 8 hour(s). Form: Total dust
- NIOSH REL (United States, 6/2009).
  TWA: 5 mg/m³ 10 hour(s). Form: Respirable fraction
  TWA: 10 mg/m³ 10 hour(s). Form: Total dust

Limestone

  TWA: 5 mg/m³ 8 hour(s).

Titanium dioxide

- ACGIH TLV (United States, 2/2010).
  TWA: 10 mg/m³ 8 hour(s).
  TWA: 10 mg/m³ 8 hour(s). Form: Total dust
  TWA: 15 mg/m³ 8 hour(s). Form: Total dust

Silica, amorphous - diatomaceous earth

  TWA: 6 mg/m³ 8 hour(s).
  TWA: 20 mppcf 8 hour(s).
  TWA: 80 mg/m³ 8 hour(s).

Quartz (SiO2)

  TWA: 250 mppcf 8 hour(s). Form: Respirable
  TWA: 10 mg/m³ 8 hour(s). Form: Respirable
  TWA: 30 mg/m³ 8 hour(s). Form: Total dust.
8. Exposure controls/personal protection

TWA: 0.1 mg/m³, (as quartz) 8 hour(s). Form: Respirable dust

ACGIH TLV (United States, 2/2010).
TWA: 0.025 mg/m³ 8 hour(s). Form: Respirable fraction; see Appendix C

NIOSH REL (United States, 6/2009).
TWA: 0.05 mg/m³ 10 hour(s). Form: respirable dust

Carbon black

ACGIH TLV (United States, 2/2010).
TWA: 0.025 mg/m³ 8 hour(s).

TWA: 0.1 mg/m³ 8 hour(s).

NIOSH REL (United States, 6/2009).
TWA: 0.05 mg/m³ 10 hour(s).
TWA: 0.1 mg of PAHs/cm³ 10 hour(s).

OSHA PEL (United States, 11/2006).
TWA: 3.5 mg/m³ 8 hour(s).

Canada

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<thead>
<tr>
<th>Ingredient</th>
<th>List name</th>
<th>TWA (8 hours)</th>
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<td></td>
<td>ppm</td>
<td>mg/m³</td>
<td>Other</td>
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<tr>
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<td></td>
<td>-</td>
<td>1 f/cc</td>
<td>-</td>
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<td>Palygorskite</td>
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<td>-</td>
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<tr>
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<tr>
<td>Silica, amorphous - diatomaceous earth</td>
<td>BC 10/2009</td>
<td>-</td>
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</tr>
<tr>
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<td>QC 6/2008</td>
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<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

United States/Canada 5/11
8. Exposure controls/personal protection

[3] Skin sensitization

Form: [a] Respirable fraction; see Appendix C [b] Respirable particulate [c] Respirable [d] Respirable fraction: means that size fraction of the airborne particulate deposited in the gas-exchange region of the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 4 μm at 50 per cent collection efficiency. [e] Respirable dust. [f] Respirable dust [g] Total dust [h] Total dust [i] Respirable dust [j] RESPIRABLE FIBRES (other than respirable asbestos fibres): Objects, other than respirable asbestos fibres, longer than 5 μm, having a diameter of less than 3 μm and a ratio of length to diameter of more than 3:1. [k] Aerosol [l] Aerosol [m] Particulate [n] Vapour [o] Vapour and mist [p] Inhalable [q] Inhalable fraction: means that size fraction of the airborne particulate deposited anywhere in the respiratory tract and collected during air sampling with a particle size-selective device that, (a) meets the ACGIH particle size-selective sampling criteria for airborne particulate matter; and (b) has the cut point of 100 μm at 50 per cent collection efficiency. [r] The value is for particulate matter containing no asbestos and < 1 per cent crystalline silica.

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Physical state: Liquid.
Flash point: Not available.
Auto-ignition temperature: Not available.
Flammable limits: Not available.
Color: Various
Odor: Characteristic.
## 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>8.5 to 9</td>
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<tr>
<td>Boiling/condensation point</td>
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</tr>
<tr>
<td>Melting/freezing point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.252 to 1.442</td>
</tr>
<tr>
<td>Density</td>
<td>1.25 to 1.439 g/cm(^3)</td>
</tr>
<tr>
<td>Vapor pressure</td>
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<tr>
<td>Vapor density</td>
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</tr>
<tr>
<td>VOC content</td>
<td>0.234 to 0.409 lbs/gal (28 to 49 g/l)</td>
</tr>
<tr>
<td>Odor threshold</td>
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</tr>
<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>Viscosity</td>
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</tr>
<tr>
<td>Solubility</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td>LogK(_{ow})</td>
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</tr>
</tbody>
</table>

## 10. Stability and reactivity

### Chemical stability
- The product is stable.

### Conditions to avoid
- No specific data.

### Incompatible materials
- Reactive or incompatible with the following materials: oxidizing materials, metals, acids and alkalis.

### Hazardous decomposition products
- Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### Possibility of hazardous reactions
- Under normal conditions of storage and use, hazardous reactions will not occur.
  - Under normal conditions of storage and use, hazardous polymerization will not occur.

## 11. Toxicological information

### Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
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<tbody>
<tr>
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<td>TDLo Oral</td>
<td>Rat</td>
<td>60 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Carbon black</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;3 g/kg</td>
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<tr>
<td>Ethylene glycol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;15400 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>4700 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

### Chronic toxicity
- Not available.

### Irritation/Corrosion
- Not available.

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>Skin - Mild irritant</td>
<td>Human</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Sensitizer
- Not available.

### Carcinogenicity
- Not available.
### 11. Toxicological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>EPA</th>
<th>NIOSH</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>A4</td>
<td>2B</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Silica, amorphous - diatomaceous earth</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Quartz (SiO₂)</td>
<td>A2</td>
<td>1</td>
<td>-</td>
<td>+</td>
<td>Proven.</td>
<td>-</td>
</tr>
<tr>
<td>Carbon black</td>
<td>A4</td>
<td>2B</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Palygorskite</td>
<td>-</td>
<td>2B</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Mutagenicity**
Not available.

**Teratogenicity**
Not available.

**Reproductive toxicity**
Not available.

### 12. Ecological information

**Ecotoxicity**
No known significant effects or critical hazards.

**Aquatic ecotoxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>Acute EC50 &gt;1000000 ug/L Fresh water</td>
<td>Daphnia - Daphnia magna - &lt;24 hours</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 5.5 ppm Fresh water</td>
<td>Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) - &lt;24 hours</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 &gt;1000000 ug/L Marine water</td>
<td>Fish - Fundulus heteroclitus</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 1 ppm Fresh water</td>
<td>Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) - &lt;24 hours</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 500 ppm Fresh water</td>
<td>Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) - &lt;24 hours</td>
<td>48 hours</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>Acute LC50 &gt;1000000 ug/L Marine water</td>
<td>Crustaceans - Crangon crangon - Adult</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 6900000 ug/L Fresh water</td>
<td>Daphnia - Ceriodaphnia dubia - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 8050000 ug/L Fresh water</td>
<td>Fish - Pimephales promelas - &lt;=7 days</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 11610000 ug/L Fresh water</td>
<td>Daphnia - Ceriodaphnia dubia - &lt;=24 hours</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 6090000 ug/L Fresh water</td>
<td>Fish - Pimephales promelas - &lt;=7 days</td>
<td>96 hours</td>
</tr>
<tr>
<td>Royal Interiors Flat Latex Wall Paint</td>
<td>Acute LC50 164.94 ppm</td>
<td>Fish</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Conclusion/Summary**
Data from an analogous product.

**Persistence/degradability**
Not available.
13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

DOT/TDG/IMDG/IATA: Not regulated.

15. Regulatory information

United States

HCS Classification: Irritating material
Carcinogen
Target organ effects

U.S. Federal regulations: TSCA 4(a) proposed test rules: Acetaldehyde
TSCA 8(a) PAIR: Octyl phenol condensed with 3 moles ethylene oxide; Tergitol NP-27; Acetaldehyde
TSCA 8(a) IUR: Partial exemption
United States inventory (TSCA 8b): Not determined.
TSCA 8(d) H and S data reporting: Acetaldehyde
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Limestone; Titanium dioxide; Quartz (SiO2)
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
Limestone: Immediate (acute) health hazard; Titanium dioxide: Immediate (acute) health hazard; Quartz (SiO2): Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 311: Acetaldehyde; Vinyl acetate; ammonia; ammonia, anhydrous
Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs): Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals): Not listed
DEA List II Chemicals (Essential Chemicals): Not listed
15. Regulatory information

SARA 313
Form R - Reporting requirements
Not applicable.
Supplier notification
Not applicable.

State regulations
Massachusetts
The following components are listed: SILICA, CRYSTALLINE, QUARTZ; TITANIUM DIOXIDE; CALCIUM CARBONATE
New York
None of the components are listed.
New Jersey
The following components are listed: SILICA, AMORPHOUS DIATOMACEOUS EARTH; KIESELGUHR; SILICA, QUARTZ; QUARTZ (SiO2); TITANIUM DIOXIDE; TITANIUM OXIDE (TiO2); CARBON BLACK; CALCIUM CARBONATE; LIMESTONE
Pennsylvania
The following components are listed: QUARTZ (SiO2); TITANIUM OXIDE (TiO2); CARBON BLACK; LIMESTONE

California Prop. 65
WARNING: This product contains a chemical known to the State of California to cause cancer.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Cancer</th>
<th>Reproductive</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (SiO2)</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Carbon black</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Palygorskite</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>90 μg/day (inhalation)</td>
</tr>
</tbody>
</table>

Canada
WHMIS (Canada)
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists
Canadian NPRI
None of the components are listed.
CEPA Toxic substances
None of the components are listed.
Canada inventory
Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations
International lists
Australia inventory (AICS): Not determined.
China inventory (IECSC): Not determined.
Japan inventory: Not determined.
Korea inventory: Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.

Chemical Weapons Convention List Schedule I Chemicals
Not listed
Chemical Weapons Convention List Schedule II Chemicals
Not listed
Chemical Weapons Convention List Schedule III Chemicals
Not listed
16. Other information

Label requirements: CAUSES EYE IRRITATION. MAY CAUSE RESPIRATORY TRACT AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. CANCER HAZARD - CAN CAUSE CANCER. BIRTH DEFECT HAZARD - CAN CAUSE BIRTH DEFECTS. DEVELOPMENTAL HAZARD - CAN CAUSE ADVERSE DEVELOPMENTAL EFFECTS.

Hazardous Material Information System (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Date of issue: 10/14/2010.
Date of previous issue: No previous validation.
Version: 1

Indicates information that has changed from previously issued version.

Notice to reader
To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.
# Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>PRODUCT NUMBER</th>
<th>HMIS CODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1010057</td>
<td>Health: 2*</td>
</tr>
<tr>
<td></td>
<td>Flammability: 4</td>
</tr>
<tr>
<td></td>
<td>Reactivity: 0</td>
</tr>
</tbody>
</table>

**PRODUCT NAME**
ACE® RUST STOP Indoor/Outdoor Enamel, Sand

**MANUFACTURER'S NAME**
ACE HARDWARE CORPORATION

**Mfd. for:** Oak Brook, IL 60521

**Medical Emergency Phone No.:** (216) 566-2917

**Transportation Emergency:** (800) 424-9300

**DATE OF PREPARATION:** 19-AUG-07

---

### Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>% by WT</th>
<th>CAS No.</th>
<th>INGREDIENT</th>
<th>UNITS</th>
<th>VAPOR PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>74-98-6</td>
<td>Propane</td>
<td>ppm</td>
<td>760 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>2500</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>106-97-8</td>
<td>Butane</td>
<td>ppm</td>
<td>760 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>64742-89-8</td>
<td>V. M. &amp; P. Naphtha</td>
<td>ppm</td>
<td>12 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>400</td>
<td>ppm STEL</td>
</tr>
<tr>
<td>1</td>
<td>100-41-4</td>
<td>Ethylbenzene</td>
<td>ppm</td>
<td>7.1 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>125</td>
<td>ppm STEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>125</td>
<td>ppm STEL</td>
</tr>
<tr>
<td>8</td>
<td>1330-20-7</td>
<td>Xylene</td>
<td>ppm</td>
<td>5.9 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>150</td>
<td>ppm STEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>150</td>
<td>ppm STEL</td>
</tr>
<tr>
<td>23</td>
<td>67-64-1</td>
<td>Acetone</td>
<td>ppm</td>
<td>180 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>750</td>
<td>ppm STEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1332-58-7</td>
<td>Kaolin</td>
<td>ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>2</td>
<td>mg/m3 as Resp. Dust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>10</td>
<td>mg/m3 Total Dust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>5</td>
<td>mg/m3 Respirable Fraction</td>
</tr>
<tr>
<td>4</td>
<td>13463-67-7</td>
<td>Titanium Dioxide</td>
<td>ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TLV</td>
<td>10</td>
<td>mg/m3 as Dust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>10</td>
<td>mg/m3 Total Dust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL</td>
<td>5</td>
<td>mg/m3 Respirable Fraction</td>
</tr>
</tbody>
</table>

0.14 Barium (as Ba; total)

Continued on page 2
Section 3 -- HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE
   INHALATION of vapor or spray mist.
   EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE
   EYES: Irritation.
   SKIN: Prolonged or repeated exposure may cause irritation.
   INHALATION: Irritation of the upper respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE
   Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
   Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
   None generally recognized.

CANCER INFORMATION
   For complete discussion of toxicology data refer to Section 11.

Section 4 -- FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes.
   Get medical attention.

SKIN: Wash affected area thoroughly with soap and water.
   Remove contaminated clothing and launder before re-use.

INHALATION: If affected, remove from exposure. Restore breathing.
   Keep warm and quiet.

INGESTION: Do not induce vomiting.
   Get medical attention immediately.

Section 5 -- FIRE FIGHTING MEASURES

FLASH POINT                        LEL      UEL
   Propellant < 0 F                0.9     12.8

EXTINGUISHING MEDIA
   Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS
   Containers may explode when exposed to extreme heat.
   Application to hot surfaces requires special precautions.
   During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES
   Full protective equipment including self-contained breathing apparatus should be used.
   Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Continued on page 3
Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
- Remove all sources of ignition. Ventilate the area.
- Remove with inert absorbent.

Section 7 -- HANDLING AND STORAGE

STORAGE CATEGORY
Not Available

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
- Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively.
- During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.
- Consult NFPA Code. Use approved Bonding and Grounding procedures.
- Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE
- Use only with adequate ventilation.
- Avoid contact with skin and eyes. Avoid breathing vapor and spray mist. Wash hands after using.
- This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m³ (total dust), 3 mg/m³ (respirable fraction), OSHA PEL 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction).
- Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

VENTILATION
- Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION
- If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.
- When sanding, wirebrushing, abrading, burning or welding the dried film, wear a particulate respirator approved by NIOSH/MSHA for protection against non-volatile materials in Section 2.

Continued on page 4
PROTECTIVE GLOVES
None required for normal application of aerosol products where minimal skin contact is expected. For long or repeated contact, wear chemical resistant gloves.

EYE PROTECTION
Wear safety spectacles with unperforated sideshields.

OTHER PRECAUTIONS
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCT WEIGHT</td>
<td>6.28 lb/gal 752 g/l</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY</td>
<td>0.76</td>
</tr>
<tr>
<td>BOILING POINT</td>
<td>&lt;0 - 325 F &lt;-18 - 162 C</td>
</tr>
<tr>
<td>MELTING POINT</td>
<td>Not Available</td>
</tr>
<tr>
<td>VOLATILE VOLUME</td>
<td>90 %</td>
</tr>
<tr>
<td>EVAPORATION RATE</td>
<td>Faster than ether</td>
</tr>
<tr>
<td>VAPOR DENSITY</td>
<td>Heavier than air</td>
</tr>
<tr>
<td>SOLUBILITY IN WATER</td>
<td>N.A.</td>
</tr>
<tr>
<td>pH</td>
<td>7.0</td>
</tr>
<tr>
<td>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</td>
<td>Volatile Weight 58.20% Less Water and Federally Exempt Solvents</td>
</tr>
</tbody>
</table>

Section 10 -- STABILITY AND REACTIVITY

STABILITY -- Stable
CONDITIONS TO AVOID
None known.
INCOMPATIBILITY
None known.
HAZARDOUS DECOMPOSITION PRODUCTS
By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Metals in Section 2
HAZARDOUS POLYMERIZATION
Will not occur

Section 11 -- TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS
Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary and reproductive systems.

Rats exposed to titanium dioxide dust at 250 mg./m³ developed lung cancer, however, such exposure levels are not attainable in the workplace. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

TOXICOLOGY DATA

Continued on page 5
<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient Name</th>
<th>LC50</th>
<th>LD50</th>
<th>4HR</th>
<th>Not Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>74-98-6</td>
<td>Propane</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>106-97-8</td>
<td>Butane</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64742-89-8</td>
<td>V. M. &amp; P. Naphtha</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100-41-4</td>
<td>Ethylbenzene</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Xylene</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67-64-1</td>
<td>Acetone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1332-58-7</td>
<td>Kaolin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13463-67-7</td>
<td>Titanium Dioxide</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 12 -- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

Section 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability and extractability to determine the applicable EPA hazardous waste numbers.

Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

Continued on page 6
Section 14 -- TRANSPORT INFORMATION

US Ground (DOT)
May be classed as Consumer Commodity, ORM-D
UN1950, AEROSOLS, 2.1, LIMITED QUANTITY, (ERG#126)

Canada (TDG)
May be classed as Consumer Commodity, ORM-D
UN1950, AEROSOLS, CLASS 2.1, LIMITED QUANTITY, (ERG#126)

IMO
May be shipped as Limited Quantity
UN1950, AEROSOLS, CLASS 2, LIMITED QUANTITY, EmS F-D, S-U

Section 15 -- REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>CHEMICAL/COMPOUND</th>
<th>% by WT</th>
<th>% Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-41-4</td>
<td>Ethylbenzene</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1330-20-7</td>
<td>Xylene</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

CALIFORNIA PROPOSITION 65
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION
All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

Section 16 -- OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.
## SECTION I

### TRADE NAME
ACE Hardware 50 Year Silicone Sealant – Fed Spec

### MANUFACTURER’S NAME AND TELEPHONE NO.
Red Devil, Incorporated (918) 825-5744

### ADDRESS
4175 Webb Street, Pryor, Oklahoma 74361

### EMERGENCY TELEPHONE NO.
(918) 825-5744 (24 Hrs.)

## SECTION II - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>%</th>
<th>TLV</th>
<th>PEL</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica** [7631-86-9] (as Amorphous silica, total dust)</td>
<td>11</td>
<td>20</td>
<td>20</td>
<td>mg/m3</td>
</tr>
<tr>
<td>Dimethylsiloxane, hydroxy-terminated (70131-67-8)</td>
<td>&lt; 60</td>
<td>NE</td>
<td>NA</td>
<td>ppm</td>
</tr>
<tr>
<td>Ethyltriacetoxysilane** (17689-77-9)</td>
<td>2</td>
<td>NE</td>
<td>NE</td>
<td>ppm</td>
</tr>
<tr>
<td>Methyltriacetoxysilane*** [4253-34-3]</td>
<td>2</td>
<td>10</td>
<td>10</td>
<td>ppm</td>
</tr>
<tr>
<td>Polydimethylsiloxane (63148-62-9)</td>
<td>1 - 5</td>
<td>10</td>
<td>10</td>
<td>ppm</td>
</tr>
<tr>
<td>Titanium dioxide** (in white product only) - (as nuisance particulate, total)[13463-67-7]</td>
<td>2</td>
<td>10</td>
<td>15</td>
<td>mg/m3</td>
</tr>
<tr>
<td>Non-hazardous ingredients*</td>
<td>&gt;75</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

*Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910).
**Inhalation of particulates unlikely due to product’s physical state.
***Observe limits for acetic acid, formed during curing on exposure to water or humid air. VOC: 3.1%/wt, CARB Compliant: YES, Prop 65: NONE

## SECTION III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point (°F)</td>
<td>NE</td>
</tr>
<tr>
<td>Specific Gravity (H₂o=1)</td>
<td>1.03</td>
</tr>
<tr>
<td>Vapor Pressure (MM Hg.)</td>
<td>NE</td>
</tr>
<tr>
<td>Percent Volatiles by Volume (%)</td>
<td>1.0 to 1.5 by wt.</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>&gt;1</td>
</tr>
<tr>
<td>pH</td>
<td>NE</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Thick liquid/sealant consistency; slight vinegar odor</td>
</tr>
</tbody>
</table>

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point (Method used)</td>
<td>&gt;200°F</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>LEL</td>
</tr>
<tr>
<td>Extinguishing Media</td>
<td>Carbon dioxide or foam</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures</td>
<td>No special procedures required.</td>
</tr>
<tr>
<td>Unusual Fire and Explosion Hazards</td>
<td>None known</td>
</tr>
</tbody>
</table>
NA - Not Applicable          NE - Not Established          UN - Unavailable
**SECTION V - HEALTH HAZARD INFORMATION**

**SYMPTOM/EFFECTS OR OVEREXPOSURE**

Eye, nose and throat irritation. Possible skin irritation.

**FIRST AID**

**EYES**

Immediately flush eyes with large amounts of water while holding the eyelids open. Get medical attention if irritation persists.

**SKIN**

Wipe material from skin with cloth or paper towel, then wash exposed area with soap and water. Get medical help if irritation persists.

**INHALATION**

Move victim to fresh air. Get medical help if irritation persists.

**INGESTION**

Contact local poison control center or physician IMMEDIATELY!

---

**SECTION VI - REACTIVITY DATA**

**STABILITY**

Normally stable. Avoid extreme heat

**INCOMPATIBLE MATERIALS**

Moisture will release acetic acid vapor

**HAZARDOUS DECOMPOSITION PRODUCTS**

Silicon dioxide, Carbon monoxide, Carbon dioxide, traces of formaldehyde

---

**SECTION VII - SPILL OR LEAK PROCEDURES**

**PROCEDURES**

Wear personal protective equipment (See Section VIII). Clean up with absorbent material.

**WASTE DISPOSAL METHOD**

Dispose of according to Local, State, and Federal regulations.

---

**SECTION VIII - SPECIAL PROTECTION INFORMATION**

**RESPIRATORY**

Not normally required. If TLV is exceeded, or for symptoms of overexposure, wear a NIOSH-approved respirator for organic vapors.

**EYEWEAR**

Wear safety glasses.

**CLOTHING/GLOVES**

Not normally required; in situations of extended skin contact, neoprene or other chemical resistant gloves are recommended.

**VENTILATION**

Local exhaust may be necessary under some handling/use conditions.

---

**SECTION IX - SPECIAL PRECAUTIONS**

Store in a closed container in dry area. NOTE: Do not wear contact lenses while applying this material, as acetic acid vapor may become trapped under lenses. This product does not contain ingredients listed in Section 313 of SARA Title III and 40 CFR 372.65. This product does not contain carcinogens (at 0.1% or greater) as defined by IARC, NTP or OSHA. PROPER SHIPPING NAME: N/A, HAZARD CLASS: N/A, UN/NA NUMBER: N/A, PACKING GROUP: N/A.

Reviewed By: Larry G. Brandon  VP Technology & General Manager  January 31, 2006

The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or for the consequences of its use or misuse.
Material Safety Data Sheet (MSDS)

Series:
#0408/AC (1213339)
#0445/AC (1213545)
#0407/8A (Ace#1269463)
#0405/8A (Ace#1269455)

NFPA Rating: 1-1-0
HMIS Rating: 1-1-0

Section I - Emergency Telephone Number

TRADE NAME (IF NONE, PUT CHEMICAL)
ACE Hardware Tub & Tile Clear - Acrylic

MANUFACTURER'S NAME AND TELEPHONE NO.
Red Devil, Incorporated (918) 825-5744

ADDRESS (Number, Street, City, State, Zip Code)
4175 Webb Street, Pryor, Oklahoma 74361

Section II - Hazardous Ingredients

PRODUCT CONSISTS OF:

Aqueous polymer emulsion (mixture) <95 NE NE

Alkyl Ester Alcohol (25265-77-4) <3.5 UN UN

Aqua Ammonia (7664-41-7) <0.50 25 50 ppm

Non-hazardous ingredients*<10 NA NA

*Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910).
VOC: 3.6%/wt. CARB Compliance: YES. Prop 65 Ingredients: NONE

Section III - Physical Data

BOILING POINT (°F) NE
SPECIFIC GRAVITY (H2O = 1) 1.03

VAPOR PRESSURE (MM Hg.) NE
PERCENT VOLATILES BY VOLUME (%) <40

VAPOR DENSITY (AIR = 1) >1
pH 8.5 - 9.0

SOLUBILITY IN WATER Appreciable
EVAPORATION RATE <0.4 (BuAc = 1)

APPEARANCE AND ODOR White paste; latex odor (CLEAR when fully cured)

Section IV - Fire and Explosion Hazard Data

FLASH POINT (Method used) >200³F
FLAMMABLE LIMITS NE

SECTION V - Stabilization and Storage

STORAGE CONDITIONS Store in a cool, dry area away from incompatible materials and from heat

SECTION VI - Extinguishing Media

EXTINGUISHING MEDIA Water, foam, dry chemical, CO2

SECTION VII - Health Effects

HEALTH EFFECTS None reported

SECTION VIII - Toxicological Information

TOXICOLOGICAL INFORMATION None reported

SECTION IX - Physical and Chemical Properties

PHYSICAL AND CHEMICAL PROPERTIES None reported

SECTION X - Stability and Reactivity

STABILITY AND REACTIVITY None reported

SECTION XI - Exposure Controls

EXPOSURE CONTROLS None reported

SECTION XII - Hazardous Decomposition or Products

Hazardous Decomposition or Products None reported

SECTION XIII - Waste Treatment

WASTE TREATMENT None reported

SECTION XIV - Transportation Information

TRANSPORTATION INFORMATION None reported

SECTION XV - Regulatory Information

REGULATORY INFORMATION None reported

SECTION XVI - Other Information

OTHER INFORMATION None reported
SECTION V - HEALTH HAZARD INFORMATION

SYMPTOM/EFFECTS OR OVEREXPOSURE
High vapor concentrations may produce headache, dizziness, and nausea. Prolonged or repeated skin contact may lead to drying and irritation. Eye contact may cause irritation.

FIRST AID

EYES
Immediately flush eyes with large amounts of water while holding the eyelids open. Get medical attention if irritation persists.

SKIN
Wipe material from skin with cloth or paper towel, then wash exposed area with soap and water. Get medical help if irritation persists.

INHALATION
Move victim to fresh air and treat symptomatically.

INGESTION
Contact local poison control center or physician IMMEDIATELY!

SECTION VI - REACTIVITY DATA

STABILITY
Normally stable.

INCOMPATIBLE MATERIALS
Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS
Carbon monoxide, carbon dioxide

SECTION VII - SPILL OR LEAK PROCEDURES

PROCEDURES
Wipe up spilled material. Wash area with detergent.

WASTE DISPOSAL METHOD
Dispose of in accordance with Local, State and Federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY
Not normally required. If TLV is exceeded, or for symptoms of overexposure, wear a NIOSH-approved respirator for organic vapor.

EYEWEAR
If potential for eye contact exists, wear chemical goggles.

CLOTHING/GLOVES
Not normally required; in situations of extended skin contact, neoprene or other chemical resistant gloves are recommended.

VENTILATION
Local exhaust may be necessary under some handling/use conditions.

SECTION IX - SPECIAL PRECAUTIONS
# Material Safety Data Sheet

**MSDS No.** 0160 Rev. 2

**Emergency Phone No.** (918) 825-5744

## SECTION 1 – PRODUCT NAME & MANUFACTURER INFORMATION

**PRODUCT NAME:** ACE Hardware Vinyl Spackling Compound  
**MANUFACTURER’S NAME & TELEPHONE NUMBER:** Red Devil, Inc. 918-825-5744  
**STREET ADDRESS:** 4175 Webb Street  
**CITY / STATE / ZIP:** Pryor, Oklahoma 74361

## SECTION 2 – COMPOSITION / HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>TLV</th>
<th>PEL</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aqueous Vinyl Acrylic Emulsion (mixture)</td>
<td>&lt; 20</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>Soda Lime Borosilicate <strong>(65997-17-3)</strong></td>
<td>&lt; 4</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>Calcium Carbonate <strong>(1317-65-3)</strong> (as nuisance particulate, total)</td>
<td>&lt; 70</td>
<td>10</td>
<td>15</td>
<td>mg/m³</td>
</tr>
<tr>
<td>Amino Methyl Propanol (AMP-95) (124-68-5)</td>
<td>&lt; 0.10</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>Propylene Glycol (57-55-6) ****</td>
<td>&lt; 1</td>
<td>400***</td>
<td>NE</td>
<td>ppm</td>
</tr>
</tbody>
</table>

Non-hazardous ingredients*

*Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200). ** Inhalation not likely due to products physical state. *** TWA. **** Contains no EG. Calculated VOC < 1.5/wt, < 25 g/L. CARB Compliance: Yes. Prop 65 Ingredients: Yes (See Section 16)

## SECTION 3 – HAZARDS IDENTIFICATION

**PRIMARY ROUTE(S) OF ENTRY:**  
- ☑ Skin Contact  
- ☑ Skin Absorption  
- ☑ Eye Contact  
- ☑ Inhalation  
- ☐ Ingestion

**EMERGENCY OVERVIEW:** White to slightly off-white paste w/ a slightly sweet odor. May cause eye, skin, nose, throat & respiratory tract irritation.

**EFFECTS OF OVEREXPOSURE:** May cause eye, skin, nose, throat & respiratory tract irritation. Harmful if swallowed. Inhalation of dust may result in pulmonary & respiratory damages. Prolonged or repeated exposure to dust may cause lung damage. This product may contain small amounts of vinyl acetate, identified by IARC as a potential carcinogen; however there should be minimal risk when used w/ ventilation adequate to keep the atmospheric concentration of vinylacetate below the recommended exposure limit.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** If dry sanded, asthma & asthma-like conditions may worsen from prolonged or repeated exposure to dust.

## SECTION 4 – FIRST AID MEASURES

**SKIN CONTACT**  
Wash w/ soap & water for @ least 15 minutes. Get medical attention if symptoms persist. Remove & wash contaminated clothing.

**EYE CONTACT**  
Immediately flush w/ large quantities of water for @ least 15 minutes until irritation subsides. Get medical attention.

**INHALATION**  
If inhaled, remove to fresh air. If breathing difficult, leave area to obtain fresh air. If breathing remains difficult, get medical attention.

**INGESTION**  
DO NOT INDUCE VOMITING. Get immediate medical attention.
SECTION 5 – FIRE FIGHTING MEASURES

FLAMMABLE  □ Yes  ☑ No

EXTINGUISHING MEDIA  Carbon Dioxide, Dry Chemical, Foam, Water Fog

FLASHPOINT (°F) & METHOD  >200°F (Seta Closed Cup)

LOWER EXPLOSIVE LIMIT (% BY VOLUME)  NE

UPPER EXPLOSIVE LIMIT (% BY VOLUME)  NE

AUTOIGNITION TEMPERATURE (°F)  NE

UNUSUAL FIRE & EXPLOSION HAZARDS  None known.

SPECIAL FIREFIGHTING PROCEDURES  Wear self-contained breathing apparatus pressure demand (NIOSH approved or equivalent) & full protective gear. Use water spray to cool exposed surfaces.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PROCEDURES  Wear proper protective equipment (Section 8). Use absorbent material or scrape up dried material & place in approved container.

SECTION 7 – HANDLING & STORAGE

HANDLING PROCEDURES & EQUIPMENT  Keep out of reach of children & pets. Do not take internally. Do not breathe vapors or inhale dusts of this product. Avoid contact w/ skin & eyes. Do not get on clothing. Use w/ adequate ventilation. Ensure fresh air during application & drying by opening windows & doors.

STORAGE REQUIREMENTS  Close container after each use. Store containers away from excessive heat & freezing. Do not store @ temperatures above 120°F. Store away from caustics & oxidizers.

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

RESPIRATORY  In case of insufficient ventilation, wear suitable respiratory equipment. A NIOSH-approved air purifying respirator w/organic vapor cartridge may be necessary under circumstances where concentrations are expected to exceed exposure limits. Prevent build-up of dust & vapors by opening windows & doors. Wet sanding is recommended to avoid generation of dust.

EYEWEAR  Goggles or safety glasses w/ side shields.

CLOTHING / GLOVES  Gloves recommended for prolonged or repeated skin contact.

HYGIENIC PRACTICES  Remove & wash contaminated clothing before re-use. Wash hands before breaks & @ end of workday.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE  Paste

ODOR & APPEARANCE  Slight sweet. White/slightly off-white paste.

SPECIFIC GRAVITY  Approximately 1.75 to 2.0

VAPOR DENSITY (AIR=1)  NE

EVAPORATION RATE  NE

BOILING RANGE (°F)  NE

pH  Approximately 7.5 to 9.5

SOLUBILITY IN WATER  NE

VAPOR PRESSURE (MM Hg)  NE

5%WT VOLABLE (TMT)  18 to 22%

SECTION 10 – STABILITY AND REACTIVITY

STABILITY  ☑ Yes  □ No  Stable under normal conditions.

INCOMPATIBILITY  ☑ Yes  □ No  Incompatible w/strong bases & strong oxidizing agents.

CONDITIONS TO AVOID  Excessive heat & freezing.
HAZARDOUS POLYMERIZATION/HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous polymerization will not occur under normal conditions. Normal decomposition products, ie: COx, NOx.

SECTION 11 – TOXICOLOGICAL INFORMATION / CARCINOGENICITY

ACGIH
Silica, crystalline (14808-60-7), present in Calcium Carbonate filler is a suspected human carcinogen. Vinyl acetate (108-05-4), present in base emulsion is a confirmed animal carcinogen w/unknown relevance to humans.

OSHA
NE

IARC
Silica, crystalline (14808-60-7), present in Calcium Carbonate filler identified as a human carcinogen. Vinyl acetate (108-05-4), present in base emulsion identified as a possible carcinogen.

NTP
Silica, crystalline (14808-60-7), present in Calcium Carbonate filler identified as a known carcinogen.

DATA WITH POSSIBLE RELEVANCE TO HUMANS
Product may contain trace amounts of vinyl acetate, identified by IARC as a potential carcinogen. There is presently no evidence that it has caused cancer in humans.

SECTION 12 – ECOLOGICAL INFORMATION

AQUATIC TOXICITY
Ecological injuries are not known or expected under normal use.

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL
Discharge of material in accordance w/ Federal, State & Local regulations.

EPA WASTE CODE IF DISCARDED (40CFR Sec. 261)
None.

SECTION 14 – TRANSPORT INFORMATION

SPECIAL SHIPPING INFORMATION
Product not regulated by DOT.

SECTION 15 – REGULATORY INFORMATION

CERCLA – SARA HAZARD CATEGORY
SARA 311 & 312: Immediate health hazard, Chronic health hazard.

U.S. STATE REGS
See Section 16.

SARA 313
None.

TSCA
All ingredients either on TSCA Inventory or exempt

SECTION 16 – OTHER INFORMATION / SPECIAL PRECAUTIONS / LEGEND

Prop 65 Ingredients (Known to State of California to cause cancer): Silica, crystalline (14808-60-7). NJ Right-to-Know: (Top 5 Ingredients): Vinyl Acrylic Emulsion (mixture), Water (7732-18-5), Petroleum Distillate (64742-88-7), Soda Lime Borosilicate (Glass Bubbles) (65997-17-3), Propylene Glycol (57-55-6) Pennsylvania Right-to-Know (Non-Haz @ >3%): Water (7732-18-5) Ingredients Known to State of California to cause birth defects or reproductive harm: None. Canadian WHMIS Class: Not regulated. HMIS Ratings: Health: 1, Flammability: 1, Reactivity: 0, Personal Protection: X.


Reviewed By: Larry G. Brandon
VP Technology & General Manager
May 14, 2008

The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user’s intended purpose or for the consequences of its use or misuse.
Material Safety Data Sheet

Emergency phone: Alpha Chemtrec #5591
US & Canada: 800 424-9300
Mexico: 01 800 022 1400, (55) 5559 1588
Brasil: 55 11 4353 2700

1. Product and company identification

<table>
<thead>
<tr>
<th>Product name</th>
<th>Solder Paste Flux</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>119653</td>
</tr>
<tr>
<td>Material uses</td>
<td>Specialty assembly materials for the electronics industries</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Cookson Electronics Mexico, S.A. de C.V.</td>
</tr>
<tr>
<td></td>
<td>Avenida Nafta No. 800,</td>
</tr>
<tr>
<td></td>
<td>Parque Industrial Stiva Aeropuerto</td>
</tr>
<tr>
<td></td>
<td>Apodaca, Nuevo León, C.P. 66600</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.alpha.alent.com">www.alpha.alent.com</a></td>
</tr>
<tr>
<td></td>
<td>Customer Service: (814) 946-1611</td>
</tr>
<tr>
<td>Validation date</td>
<td>6/3/2013.</td>
</tr>
<tr>
<td>Prepared by</td>
<td>T. Valverde (203)-799-4940</td>
</tr>
<tr>
<td>Supersedes Date</td>
<td>5/23/2013.</td>
</tr>
</tbody>
</table>

2. Hazards identification

Physical state : Solid.
Odor : None.
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview : DANGER!
Toxic if swallowed. Corrosive to the eyes and digestive tract. Causes burns. Severely irritating to the skin and respiratory system. Do not ingest. Do not get in eyes or on skin or clothing. Contains material that may cause target organ damage, based on animal data. Contains material which may cause heritable genetic effects, based on animal data. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Inhalation : Severely irritating to the respiratory system. May cause burns to mouth, throat and stomach.
Ingestion : Toxic if swallowed. Corrosive to the digestive tract. May cause burns to mouth, throat and stomach. Can cause target organ damage. Adverse symptoms may include the following: nausea or vomiting stomach pains Ingestion may cause gastrointestinal irritation and diarrhea.
2. Hazards identification

**Skin** : Severely irritating to the skin. Blistering may occur. Adverse symptoms may include the following: pain or irritation, redness.

**Eyes** : Corrosive to eyes. Causes burns. Direct contact with the eyes can cause irreversible damage, including blindness.

**Potential chronic health effects**

**Chronic effects** : Contains material that can cause target organ damage. Adverse symptoms may include the following:

- **Zinc. Salt**: dermatitis, ulcerations, metal fume fever, pulmonary edema, chemical pneumonitis, mental confusion or disorientation, drowsiness/fatigue, difficulty swallowing, blood pressure elevation, convulsions, circulatory collapse.

**Target organs** : Contains material which may cause damage to the following organs: kidneys, lungs, liver, cardiovascular system, upper respiratory tract, skin, eyes, pancreas.

**Carcinogenicity** : Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

**Mutagenicity** : Contains material which may cause heritable genetic effects, based on animal data.

**Teratogenicity** : Not classified.

**Developmental effects** : Not classified.

**Fertility effects** : Not classified.

**California Prop. 65** : **WARNING**: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

**WARNING**: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

**Medical conditions aggravated by over-exposure** : Pre-existing digestive disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc. Salt</td>
<td>-</td>
<td>20-30</td>
</tr>
</tbody>
</table>

Any ingredient not listed in Section 3 is non-regulated or present in the product in concentrations below legal disclosure limits.

4. First aid measures

**Eye contact** : Get medical attention immediately. Chemical burns must be treated promptly by a physician. Check for and remove any contact lenses. Immediately flush eyes with running water for at least 60 minutes, keeping eyelids open. Provide a readily-accessible eyewash facility and quick-drench safety shower.

**Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 30 minutes while removing contaminated clothing and shoes. Provide a readily-accessible eyewash facility and quick-drench safety shower. Get medical attention. Wash contaminated clothing before reuse. Clean shoes thoroughly before reuse.

**Inhalation** : Get medical attention immediately. Chemical burns must be treated promptly by a physician. Move exposed person to fresh air. If it is suspected that mists are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Continued on next page
4. First aid measures

Ingestion: Get medical attention immediately. Chemical burns must be treated promptly by a physician. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wear suitable protective clothing, gloves and eye/face protection. If it is suspected that mists are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

5. Fire-fighting measures

Flammability of the product: No specific fire or explosion hazard.

Extinguishing media:

Suitable: Use an extinguishing agent suitable for the surrounding fire.
Not suitable: None known.

Special exposure hazards: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous combustion products: halogenated compounds
metal oxide/oxides

Special remarks on fire hazards: Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Large spill: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Small spill: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Continued on next page
7. Handling and storage

Handling: Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Provide a readily-accessible eyewash facility and quick-drench safety shower. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Provide a readily-accessible eyewash facility and quick-drench safety shower. Keep container tightly closed. Keep container in a cool, well-ventilated area.

8. Exposure controls/personal protection

Product name: Zinc Salt

Exposure limits:
- ACGIH TLV (United States, 3/2012).
  STEL: 2 mg/m³ 15 minute(s). Form: Fume
  TWA: 1 mg/m³ 8 hour(s). Form: Fume
- NIOSH REL (United States, 6/2009).
  STEL: 2 mg/m³ 15 minute(s). Form: Fume
  TWA: 1 mg/m³ 10 hour(s). Form: Fume
- OSHA PEL (United States, 6/2010).
  TWA: 1 mg/m³ 8 hour(s). Form: Fume
  STEL: 2 mg/m³ 15 minute(s). Form: Fume
  TWA: 1 mg/m³ 8 hour(s). Form: Fume

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Provide a readily-accessible eyewash facility and quick-drench safety shower. Processes should be designed to minimize airborne and skin exposure to hazardous substances.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Take off immediately all contaminated clothing. Contaminated work clothing should not be allowed out of the workplace.

Personal protection

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with NIOSH if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Risk assessments should be completed by a Certified Industrial Hygienist.

Continued on next page
8. Exposure controls/personal protection

**Hands**: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment. Risk assessments should be completed by a Certified Industrial Hygienist.

**Eyes**: Avoid contact with eyes. Safety eyewear should be used when there is a likelihood of exposure. Direct contact with the eyes can cause irreversible damage, including blindness.

**Skin**: Avoid contact with skin and clothing. Wear suitable protective clothing. Body garments used should be based upon the task being performed (e.g., lab coat, chemical resistant protective suit, sleevelets, synthetic apron, gauntlets) to avoid exposed skin surfaces. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**Environmental exposure controls**: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical state</strong></td>
<td>Solid.</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammable limits</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Gray.</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>None.</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Boiling/condensation point</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Melting/freezing point</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>VOC</strong></td>
<td>0.02 g/l</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stability</strong></td>
<td>The product is stable.</td>
</tr>
<tr>
<td><strong>Conditions to avoid</strong></td>
<td>No specific data.</td>
</tr>
<tr>
<td><strong>Incompatibility with various substances</strong></td>
<td>Reactive with oxidizing agents, reducing agents, metals, acids, alkalis. Chlorine, peroxides</td>
</tr>
<tr>
<td><strong>Hazardous decomposition products</strong></td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
<tr>
<td><strong>Other Hazardous decomposition products</strong></td>
<td>Toxic fumes</td>
</tr>
<tr>
<td><strong>Hazardous polymerization</strong></td>
<td>Under normal conditions of storage and use, hazardous polymerization will not occur.</td>
</tr>
</tbody>
</table>

Continued on next page
11. Toxicological information

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc. Salt</td>
<td>LD50 Oral</td>
<td>Mouse</td>
<td>329 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>350 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Mutagenicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Experiment</th>
<th>Dose</th>
<th>Exposure</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc. Salt</td>
<td>-</td>
<td>Bacteria</td>
<td>-</td>
<td>-</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>Mammalian-Animal</td>
<td>-</td>
<td>-</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Alpha has not conducted specific studies on the toxicity of this product.

12. Ecological information

**CURRENTLY UNDER TECHNICAL REVIEW**

13. Disposal considerations

**Waste disposal**: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Classes</th>
<th>PG*</th>
<th>Label</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT Classification</td>
<td>Not regulated</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

PG*: Packing group

15. Regulatory information

**United States**

**HCS Classification**: Toxic material
Corrosive material
Target organ effects

**U.S. Federal regulations**

- **TSCA 5(a)2 proposed significant new use rules**: No products were found.
- **TSCA 5(a)2 final significant new use rules**: No products were found.
- **TSCA 12(b) one-time export**: No products were found.
- **TSCA 12(b) annual export notification**: No products were found.

**United States inventory (TSCA 8b)**

- **SARA 313**: All components are listed or exempted.

Continued on next page
15. Regulatory information

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form R - Reporting requirements</td>
<td>Zinc. Salt</td>
<td>-</td>
</tr>
<tr>
<td>Supplier notification</td>
<td>Zinc. Salt</td>
<td>-</td>
</tr>
</tbody>
</table>

SARA 302/304/311/312 extremely hazardous substances: No products were found.

California Prop. 65
WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada
WHMIS (Canada) : Class E: Corrosive material
Canada inventory : All components are listed or exempted.

International lists
China inventory (IECSC) : All components are listed or exempted.
Australia inventory (AICS) : All components are listed or exempted.
Korea inventory (KECI) : All components are listed or exempted.
Philippines inventory (PICCS) : All components are listed or exempted.

16. Other information

Definition of Terms
ACGIH American Conference of Governmental Industrial Hygienists
Ceiling Maximum exposure limit defined by OSHA
CAS Chemical Abstract Service
IARC International Agency for Research on Cancer
NIOSH National Institute for Occupational Safety and Health
NTP National Toxicology Program
OSHA Occupational Safety and Health Administration
PEL Permissible Exposure Limit
REL Recommended Exposure Limit
RTK Right to Know
SARA Superfund Amendments and Reauthorization Act
STEL Short Term Exposure Limit
TLV ACGIH Threshold Limit Value
TLV-C ACGIH Threshold Limit Value, Ceiling
TRADE SECRET Claimed as allowed under 29CFR§1910.1200
TSCA Toxic Substances Control Act
PPE Personal Protection Equipment
CEPA Canadian Environmental Protection Act
DSL Domestic Substance List
NDSL Non-Domestic Substance List
NSN New Substance Notification Rules

Disclaimer
The information contained herein is based on data considered accurate. However, no warranty is expressed of implied regarding the accuracy of these data or the results to be obtained from the use thereof. Additionally, Cookson Electronics assumes no responsibility for injury to the vendee or third persons proximately caused by the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.
16. Other information
Section 1 - Product and Company Information

Product Name: STARCH POTATO  
Product Number: S4251  
Brand: SIGMA  
Company: Sigma-Aldrich  
Street Address: 3050 Spruce Street  
City, State, Zip, Country: SAINT LOUIS MO 63103 US  
Technical Phone: 314 771 5765  
Emergency Phone: 414 273 3850 Ext. 5996  
Fax: 800 325 5052

Section 2 - Composition/Information on Ingredient

Substance Name: STARCH, SOLUBLE  
CAS #: 9005-25-8  
SARA 313: No  
RTECS Number: GM5090000

Section 3 - Hazards Identification

HMIS RATING  
HEALTH: 0  
FLAMMABILITY: 0  
REACTIVITY: 0  

NFPA RATING  
HEALTH: 0  
FLAMMABILITY: 0  
REACTIVITY: 0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE  
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE
If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

DERMAL EXPOSURE
In case of contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT
N/A

AUTOIGNITION TEMP
N/A

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

METHODS FOR CLEANING UP
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING
User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE
Suitable: Keep tightly closed.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory: Wear dust mask.
Hand: Protective gloves.
Eye: Chemical safety goggles.
GENERAL HYGIENE MEASURES
Wash thoroughly after handling.

EXPOSURE LIMITS, RTECS

<table>
<thead>
<tr>
<th>Country</th>
<th>Source</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>ACGIH</td>
<td>TWA</td>
<td>10 MG/M3</td>
</tr>
<tr>
<td>USA</td>
<td>MSHA Standard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remarks: Nuisance Particulates.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>OSHA</td>
<td>PEL</td>
<td>8H TWA 15 MG/M3, TOTAL DUST</td>
</tr>
<tr>
<td>New Zealand OEL</td>
<td>Remarks: check ACGIH TLV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>NIOSH</td>
<td>TWA</td>
<td>5 MG/M3</td>
</tr>
</tbody>
</table>

Section 9 - Physical/Chemical Properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Physical State: Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property</td>
<td>Value</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>BP/BP Range</td>
<td>N/A</td>
</tr>
<tr>
<td>MP/MP Range</td>
<td>N/A</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Saturated Vapor Conc.</td>
<td>N/A</td>
</tr>
<tr>
<td>SG/Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>Volatile%</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC Content</td>
<td>N/A</td>
</tr>
<tr>
<td>Water Content</td>
<td>N/A</td>
</tr>
<tr>
<td>Solvent Content</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
<tr>
<td>Surface Tension</td>
<td>N/A</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition Temp.</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Autoignition Temp</td>
<td>N/A</td>
</tr>
<tr>
<td>Refractive Index</td>
<td>N/A</td>
</tr>
<tr>
<td>Optical Rotation</td>
<td>N/A</td>
</tr>
<tr>
<td>Miscellaneous Data</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>N/A</td>
</tr>
</tbody>
</table>

N/A = not available

Section 10 - Stability and Reactivity

STABILITY
- Stable: Stable.
- Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
- Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION
- Hazardous Polymerization: Will not occur
Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE
The nuisance dust may be an allergen and a mild irritant. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Intraperitoneal
Mouse
6600 MG/KG
LD50

IRRITATION DATA

Skin
Human
0.3 mg
3D
I
Remarks: Mild irritation effect

ACGIH CARCINOGEN LIST
Rating: A4

Section 12 - Ecological Information

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

UNITED STATES REGULATORY INFORMATION
SARA LISTED: No
TSCA INVENTORY ITEM: Yes

Section 16 - Other Information

DISCLAIMER
For R&D use only. Not for drug, household or other uses.

WARRANTY
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.
1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME**

**SODIUM BICARBONATE**

Manufacturer’s Name and Address:
Church & Dwight Co., Inc.
469 N. Harrison Street
Princeton, NJ. 08543-5297
USA

**24 HOUR EMERGENCY TELEPHONE:**
CHEMTREC 1-800-424-9300 (USA)
+001-703-527-3887 (INT’L)
Medical Emergency Phone:
1-888-234-1828 (USA)
+001-952-853-1925 (INT’L)

**Product Use:** Food ingredient, Pharmaceutical, Water Treatment, General Industrial Use

**Chemical Name:** Sodium bicarbonate

**Chemical Formula:** NaHCO3

**Synonyms/Common Names:** Baking Soda

---

2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

White crystalline powder; no odor.
Not a fire hazard.
No significant health or environmental effects associated with this material.

<table>
<thead>
<tr>
<th>HMIS Rating</th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Potential Health Effects**

EYE: Not an eye irritant.
SKIN CONTACT: Not a skin irritant.
INGESTION: Material is practically non-toxic. Small amounts (1-2 tablespoonfuls) swallowed during normal handling operations are not likely to cause injury as long as the stomach is not overly full; swallowing larger amounts may cause injury (see Note in Section IV).

INHALATION: None known.

SUBCHRONIC EFFECTS/CARCINOGENICITY: Based on published studies on its effects in animals and humans, sodium bicarbonate is not teratogenic or genotoxic. Only known subchronic effect is that of a marked systemic alkalosis. Not classified as carcinogenic by NTP, IARC, OSHA, ACGIH or NIOSH.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Ingredient (% by Weight)</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bicarbonate 100%</td>
<td>144-55-8</td>
</tr>
</tbody>
</table>

Not a WHMIS controlled substance.

4. FIRST AID MEASURES

EYES: Check for and remove contacts. Flood eyes with clean flowing water, low pressure and luke warm (not hot) if possible, occasionally lifting eyelids.

INGESTION: If large amounts of this material are swallowed, do not induce vomiting. Administer water if person is conscious. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES FLAMMABLE LIMITS
FLASHPOINT: Not combustible LFL: Not applicable
METHOD USED: Not applicable UFL: Not applicable
EXTINGUISHING MEDIA: Non-combustible material. Use extinguishing media appropriate for surrounding fire.

FIRE-FIGHTING INSTRUCTIONS: Carbon Dioxide may be generated making necessary the use of a self-contained breathing apparatus (SCBA) and full protective equipment (Bunker Gear). Carbon dioxide is an asphyxiant at levels over 5% w/w. Sodium oxide, another thermal decomposition product existing at temperatures above 1564°F is a respiratory, eye, and skin irritant. Avoid inhalation, eye and skin contact with sodium oxide dusts.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.
6. ACCIDENTAL RELEASE MEASURES
Scoop up into dry, clean containers. Wash away small uncontaminated amounts of residue with water.

7. HANDLING AND STORAGE
Store in cool, dry areas and away from incompatible substances (see Section 10). Sodium Bicarbonate reacts with acids to yield carbon dioxide gas which can accumulate in confined spaces. Do not enter confined spaces until they have been well ventilated and carbon dioxide and oxygen levels have been determined to be safe.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
AIRBORNE EXPOSURE LIMITS: None established.
RESPIRATORY PROTECTION: Dust mask required if total dust level exceeds 10 mg/m³.
PROTECTIVE GLOVES: General purpose for handling dry product. Impervious gloves when working with solutions.
EYE PROTECTION: Safety glasses when handling bulk material or when dusts are generated.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Full cover clothing. Apron where splashing may occur when working with solutions.

9. PHYSICAL AND CHEMICAL PROPERTIES
APPEARANCE: White crystalline powder.
ODOR: None.
PHYSICAL STATE: Solid
pH AS IS: Not Applicable
pH (1% SOLN. w/v): 8.2
VAPOR PRESSURE: Not applicable.
VAPOR DENSITY: Not applicable.
BOILING POINT: Not applicable.
FREEZING/MELTING POINT: Not applicable.
SOLUBILITY IN WATER: 8.6 g/100 ml @ 20°C.
BULK DENSITY (g/cc): 62 lb/Ft³
% VOCs: Not applicable.
VOLATILE ORGANIC COMPOUNDS: Not applicable.
MOLECULAR WEIGHT: 84.02

10. STABILITY AND REACTIVITY
CHEMICAL STABILITY: Stable.
CONDITIONS TO AVOID: Temperatures above 65°C (150°F).

INCOMPATIBILITY WITH OTHER MATERIALS: Reacts with acids to yield carbon dioxide. May also yield free caustic in presence of lime dust (CaO) and moisture (i.e., water, perspiration). Dangerous reaction with monoammonium phosphate or a sodium-potassium alloy may occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Heating above 100°C may cause dangerous levels of carbon dioxide gas to be present in confined spaces. Yields sodium oxide if exposed to temperatures above 850°C. Avoid inhalation, eye and skin contact with sodium oxide.

HAZARDOUS POLYMERIZATION: Not applicable.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: The material was minimally irritating to unwashed eyes and practically non-irritating to washed eyes (rabbits).

SKIN EFFECTS: Not a skin irritant or dermally toxic. Not a contact sensitizer.

ACUTE ORAL EFFECTS: Acute Oral-rat LD₅₀ = 7.3 g/kg.

ACUTE INHALATION: LC₅₀ (rat) > 4.74 mg/l.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY:
- Daphnids: EC₅₀ = 4100 mg/l.
- Bluegill: LC₅₀ = 7100 mg/l.
- Rainbow Trout: LC₅₀ = 7700 mg/l.

PERSISTENCE: This product is not expected to persist in the environment.

BIOACCUMULATION: This product is not expected to bioaccumulate.

BIODEGRADATION: This material is inorganic and not subject to biodegradation.

13. DISPOSAL CONSIDERATIONS

Bury in a secured landfill in accordance with all local, state and federal environmental regulations. Empty containers may be incinerated or discarded as general trash.

14. TRANSPORTATION INFORMATION

D.O.T. SHIPPING NAME: Not regulated

15. REGULATORY INFORMATION

CLEAN AIR ACT SECTION 611: Material neither contains nor is it manufactured with ozone depleting substances (ODS).

FEDERAL WATER POLLUTION CONTROL ACT (40 CFR 401.15): Material contains no intentionally added or detectable (contaminant) levels of EPA priority toxic pollutants.
FOOD AND DRUG ADMINISTRATION: Generally Recognized As Safe (GRAS) direct food additive (21 CFR 184.1736).

US DEPARTMENT OF AGRICULTURE: List of Proprietary Substances - Permitted Use Codes 3A, J1, A1, G1, and L1.

CERCLA REPORTABLE QUANTITY: None

OSHA: Not hazardous under 29 CFR 1910.1200

RCRA: Not a hazardous material or a hazardous waste by listing or characteristic.

SARA TITLE III:
- Section 302, Extremely Hazardous Substances: None
- Section 311/312, Hazardous Categories: Non-hazardous
- Section 313, Toxic Chemicals: None

Sodium Bicarbonate is reported in the EPA TSCA Inventory List.

Contains no VOCs.

NATIONAL STOCKING NUMBER: 6810002646618, Contract No. DLA 40086C1831
NSF STANDARD 60: Corrosion and Scale Control in Potable Water. Max use 200 mg/l.

CANADA-DSDL
EUROPEAN INVENTORY (EINECS): 205-633-8
JAPANESE INVENTORY (MITI): 1-164

AUSTRALIAN INVENTORY (AICS): Carbonic acid, monosodium salt.

KOREA- yes
PHILLIPINE- yes

16. OTHER INFORMATION

SUPERSEDES DATE: 07/12/07 REASON FOR REVISION: New ANSI Revision.

For additional non-emergency health, safety, and environmental information telephone 609.279.7705 or write to:
Church & Dwight Co. Inc.
Product Stewardship
469 North Harrison Street
Princeton, New Jersey 08543

This Product Safety Data Sheet is offered solely for your information, consideration and investigation. Church & Dwight Co., Inc. provides no warranties; either expressed or implied, and assumes no responsibility for the accuracy or completeness of data contained herein. Church & Dwight Co., Inc. urges persons receiving this information to make their own determination as to the information suitability for their particular application.
CAL-WESTERN PAINTS -- ARTISTIC ACRYLIC PAINT -- 8010-00F032335

=====================  Product Identification  =====================
Product ID: ARTISTIC ACRYLIC PAINT
MSDS Date: 10/21/1992
FSC: 8010
NIIN: 00F032335
MSDS Number: BSZHM

=== Responsible Party ===
Company Name: CAL-WESTERN PAINTS
Address: 11748 SLAUSON AVE
City: SANTA FE SPRINGS
State: CA
ZIP: 90670
Country: US
Info Phone Num: 310-693-0872
Emergency Phone Num: 310-693-0872
CAGE: CALWE

=== Contractor Identification ===
Company Name: CAL-WESTERN PAINTS
Address: 11748 SLAUSON AVE
Box: City: SANTA FE SPRINGS
State: CA
ZIP: 90670
Country: US
Phone: 310-693-0872
CAGE: CALWE

==============  Composition/Information on Ingredients  =============
Ingred Name: WATER
CAS: 7732-18-5
RTECS #: ZC0110000
Fraction by Wt: 40-55%

Ingred Name: RESIN EMULSION
Fraction by Wt: 20-30%

Ingred Name: NATURAL AGGREGATES
Fraction by Wt: 10-25%

Ingred Name: PIGMENT
Fraction by Wt: 10-25%
Other REC Limits: 10 MG/CUM (DUST)
RTECS #: 9999999WG
Fraction by Wt: 10.51%

=====================  Hazards Identification  =====================
Routes of Entry: Inhalation: YES  Skin: YES  Ingestion: NO
Reports of Carcinogenicity: NTP: NO  IARC: NO  OSHA: NO
Health Hazards Acute and Chronic: INHALATION: MILD RESPIRATORY IRRITATION. EYES: IRRITATION. SKIN: IRRITATION.
Explanation of Carcinogenicity: NONE
Effects of Overexposure: INHALATION: HEADACHES, NAUSEA. SKIN: REDDENING
Medical Cond Aggravated by Exposure: PRE-EXISTING EYES, SKIN, ALLERGY, AND/OR RESPIRATORY DISORDERS.

First Aid Measures

First Aid: INHALATION: REMOVE FROM EXPOSURE, PROVIDE PLENTY OF FRESH AIR. EYES: FLUSH IMMEDIATELY W/PLENTY OF WATER FOR AT LEAST 15 MINUTES, LIFTING UPPER & LOWER EYELIDS OCCASIONALLY. SKIN: REMOVE W/SOAP & WATER. SUPPLY COPIOUS AMOUNTS OF FRESH WATER THE SKIN AREAS TO RINSE MATERIAL AWAY. INGESTION: CLEAR PASSAGE WAY, INCUCE VOMITING BY GIVING ONE/TWO GLASSES OF WATER & STICKING FINGER DOWN THROAT.

Fire Fighting Measures

Flash Point: 212 F
Extinguishing Media: WATER SPRAY, CO2, DRY CHEMICAL.
Fire Fighting Procedures: IF WATER IS USED, FOG NOZZLES ARE PREFERABLE. USE WATER TO COOL CLOSED CONTAINERS. WEAR SCBA (PRESSURE-DEMAND, MSHA/NIOHS OR EQUIVALENT) & FULL PROTECTIVE GEAR.
Unusual Fire/Explosion Hazard: CLOSED CONTAINERS MAY EXPLODE DUE TO THE BUILD UP OF STEAM PRESSURE WHEN EXPOSED TO EXTREME HEAT.

Accidental Release Measures

Spill Release Procedures: CONTAIN/REMOVE W/INERT ABSORBENT. PLACE IN PROPER CONTAINER FOR DISPOSAL. PLACE CONTAMINATED MATERIAL IN SUITABLE SEALED METAL CONTAINERS FOR DISPOSABLE. DON'T INCINERATE CLOSED CONTAINERS. USE NON-LEAKING CONTAINERS, SEAL TIGHTLY, LABEL PROPERLY.

Handling and Storage

Handling and Storage Precautions: SHOULD BE STORED AT ROOM TEMPERATURE TO PROLONG SHELF LIFE. KEEP FROM FREEZING. KEEP CONTAINER CLOSED. KEEP OUT OF THE REACH OF CHILDREN.
Other Precautions: DON'T DRINK/TAKE INTERNALLY. DON'T GET IN EYES. AVOID PROLONGED SKIN CONTACT. PREVENT PROLONGED/REPEATED BREATHING OF VAPOR/SPRAY MIST. AVOID CONTACT W/CLOTHING, FABRICS/POREUS SURFACES WHERE PERMANENT STAINING MAY TAKE PLACE.

Exposure Controls/Personal Protection

Respiratory Protection: NIOSH/MSHA APPROVED RESPIRATOR. GOOD ROOM (MECHANICAL) ROOM VENTILATION SHOULD BE SUFFICIENT PROTECTION AGAINST SPRAY MISTS FROM PRODUCT.
Ventilation: GENERAL (MECHANICAL) ROOM VENTILATION.
Protective Gloves: PLASTIC/LATEX RUBBER
Eye Protection: SAFETY GLASSES W/SIDE SHIELDS
Other Protective Equipment: FACE SHIELD, EYE WASH
Supplemental Safety and Health
CON’T ON WASTE: DON’T MIX W/OTHER KINDS OF WASTE. DISPOSE ALL WASTE IN ACCORDANCE W/LOCAL, STATE, & FEDERAL REGULATIONS.

================================= Physical/Chemical Properties ==================================

Boiling Pt: B.P. Text: 212F
Vapor Density: > THAN AIR
Evaporation Rate & Reference: SLOWER THAN ETHER
Solubility in Water: COMPLETE
Appearance and Odor: NORMAL LATEX PAINT APPEARANCE W/SLIGHT ACRYLIC ODOR.
Percent Volatiles by Volume: 68.55

================================== Stability and Reactivity Data =================================

Stability Indicator/Materials to Avoid: YES
Stability Condition to Avoid: EXTREME HEAT, FREEZING

================================ Disposal Considerations ======================================

Waste Disposal Methods: DON’T POUR CONTAMINATED PAINT INTO UNUSED PAINT. DON’T THROW PAINT INTO TRASH. ALLOW LIQUID WASTE MATERIALS TO DRY, BEFORE DISPOSING. TAKE LIQUID UNUSED PAINT TO APPROVED RECYCLING CENTERS. DON’T DISP OSE OF WASTE INTO WATER/STREAMS/SEWERS.SEE SUPP.

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533 ARTISTIC ACRYLIC PAINT, PHTHALO RED

MSDS Number
BSZJP

National Stock Number
8010-00F032358

Product Name
533 ARTISTIC ACRYLIC PAINT, PHTHALO RED

Manufacturer
CAL WESTERN PAINTS

Product Identification
Product ID: 533 ARTISTIC ACRYLIC PAINT, PHTHALO RED
MSDS Date: 11/05/1992
FSC: 8010
NIIN: 00F032358
MSDS Number: BSZJP

Responsible Party
CAL-WESTERN PAINTS
11748 SLAUSON AVE
SANTA FE SPRINGS, CA 90670
US
Emergency Phone: 310-693-0872
Info Phone: 310-693-0872
Cage: CALWE

Contractor
CAL-WESTERN PAINTS
SANTA FE SPRINGS, CA 90670
US
310-693-0872
Cage: CALWE

Ingredients
WATER
CAS: 7732-18-5
RTECS: ZC01100000
Fraction By Weight: 40-55%

RESIN EMULSION
Fraction By Weight: 20-30%

NATURAL AGGREGATES
Fraction By Weight: 10-25%

PIGMENT
Fraction By Weight: 10-25%

10.15-10.45
RTECS: 9999999WG

0.35 LB/GAL; MATERIAL LESS
RTECS: 9999999VO

Hazards
Routes of Entry: Inhalation: YES Skin: NO Ingestion: NO
Reports of Carcinogenicity: NTP: NO IARC: NO OSHA: NO
Health Hazards Acute and Chronic: INHALATION: MILD RESPIRATORY IRRITATION. EYES: TRANSIENT IRRITATION. SKIN: IRRITATION.
Explanation of Carcinogenicity: NONE
Effects of Overexposure: INHALATION: HEADACHES, NAUSEA. SKIN: REDDENING.
Medical Cond Aggravated by Exposure: EYES, SKIN, ALLERGY &/OR RESPIRATORY DISORDERS

First Aid
First Aid: INHALATION: REMOVE TO FRESH AIR. EYES: FLUSH IMMEDIATELY W/PLENTRY OF WATER FOR AT LEAST 15 MINS. SKIN: REMOVE W/SOAP & WATER. REMOVE CONTAMINATED CLOTHING. SUPPLY PLENTY OF FRESH WATER TO RINSE MATERIAL AWAY. INGESTION: INDUCE VOMITING IMMEDIATELY BY GIVING 1-2 GLASSES OF WATER & STICKING FINGER DOWN THROAT. NEVER GIVE ANYTHING BY MOUTH IF UNCONSCIOUS. OBTAIN MEDICAL ATTENTION IN ALL CASES.

Fire Fighting
Flash Point: 212F
Extinguishing Media: WATER SPRAY, CO2, DRY CHEMICAL
Fire Fighting Procedures: IF WATER IS USED, FOG NOZZLES ARE PREFERABLE. USE WATER TO COOL CLOSED CONTAINERS. WEAR SELF-CONTAINED BREATHING APPARATUS & FULL PROTECTIVE GEAR.
Unusual Fire/Explosion Hazard: CLOSED CONTAINERS MAY EXPLODE DUE TO BUILD UP OF STEAM PRESSURE WHEN EXPOSED TO EXTREME HEAT.

Accidental Release
Spill Release Procedures: CONFINE IN SMALL AREA. CONTAIN & REMOVE W/INERT ABSORBENT. PLACE CONTAMINATED MATERIAL IN SUITABLE SEALED METAL CONTAINERS FOR DISPOSAL. USE NON-LEAKING CONTAINERS, SEAL TIGHTLY & LABEL PROPERLY. DO NOT MIX W/OTHER KINDS OF WASTE.

Handling
Handling and Storage Precautions: STORE AT ROOM TEMPERATURE TO PROLONG SHELF LIFE. KEEP FROM FREEZING. KEEP CONTAINER CLOSED. DON'T POUR CONTAMINATED PAINT BACK INTO UNUSED PAINT.
Other Precautions: KEEP OUT OF REACH OF CHILDREN UNLESS SUPERVISED BY AN ADULT. DON'T TAKE INTERNALLY. AVOID SKIN & EYE CONTACT. AVOID BREATHING VAPOR/SPRAY MIST. AVOID CONTACT W/CLOTHING, FABRICS OR POROUS SURFACES WHE RE PERMANENT STAINING MAY OCCUR.

Exposure Controls
Respiratory Protection: IF SPRAYING, USE AN APPROPRIATE, PROPERLY FITTED NIOSH/MSHA APPROVED RESPIRATOR.
Ventilation: GENERAL (MECHANICAL) ROOM IS EXPECTED TO BE SATISFACTORY
Protective Gloves: PLASTIC OR LATEX RUBBER
Eye Protection: SAFETY GLASSES W/SIDE SHIELD/FACE SHIELD
Other Protective Equipment: EYE WASH

Supplemental Safety and Health
WASTE DISPOSAL (CONT'D): TAKE ALL LIQUID UNUSED PAINT THAT CANNOT BE USED TO APPROVED RECYCLING CENTERS, PAINT ROUNDDUPS, OR APPROVED COUNTY FACILITIES. AS PRODUCED, THIS PRODUCT IS NOT A CLASSIFIED AS A HAZARDOUS WASTE UNDER RCRA/EPA. THIS PRODUCT IS NOT IGNITABLE,
CORROSIVE, REACTIVE OR TOXIC.

**Chemical Properties**

Boiling Pt:B.P. Text: 212F  
Vapor Density: >1  
Evaporation Rate & Reference:SLOWER THAN ETHER  
Solubility in Water:COMPLETE  
Appearance and Odor:NORMAL LATEX PHTHALO RED PAINT W/SLIGHT ACRYLIC ODOR  
Percent Volatiles by Volume:69.09

**Stability**

Stability Indicator/Materials to Avoid:YES  
Stability Condition to Avoid:FREEZING

**Disposal**

Waste Disposal Methods:DON'T INCINERATE CLOSED CONTAINERS. DON'T THROW LIQUID PAINT INTO TRASH; ALLOW TO DRY BEFORE PLACING IN TRASH CONTAINER. DON'T DISPOSE OF IN WATER STREAMS/STORM WATER SEWERS.  
DISPOSE OF IN ACCORDANCE W/FEDERAL, STATE & LOCAL REGULATIONS.  
(SEE SUPPL.)

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Material Safety Data Sheet

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

ALL WEATHER MV HYDRAULIC OIL 32

MOTOR OIL, INC.
1490 Jarvis Avenue
Elk Grove Village, IL 60007
Phone (847) 956-7550 Fax (847) 956-0399

CAS Registry Number Not applicable for mixtures
Chemical Family Petroleum hydrocarbon
Product Type Premium quality multi-viscosity anti-wear hydraulic oil
Preparation/Revision Date 12/2012

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS Number</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>% (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Lubricating Base Stock</td>
<td>64742-54-7</td>
<td>5 mg/m³</td>
<td>5 mg/m³</td>
<td>&gt;99</td>
</tr>
<tr>
<td>Zinc Alkyl Dithophosphate</td>
<td>68649-42-3</td>
<td>NE</td>
<td>NE</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Alkylated Phenol</td>
<td>Trade Secret</td>
<td>NE</td>
<td>NE</td>
<td>&lt;.03</td>
</tr>
<tr>
<td>Calcium Phenate</td>
<td>Trade Secret</td>
<td>NE</td>
<td>NE</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>2-Ethlyhexanol</td>
<td>104-76-7</td>
<td>NE</td>
<td>NE</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

SECTION 3 HAZARDS IDENTIFICATION

Principal Hazard(s) Contains petroleum oil. Avoid breathing mists or vapors. Avoid prolonged or repeated skin contact.

SECTION 4 FIRST AID MEASURES

<table>
<thead>
<tr>
<th>Type</th>
<th>First Aid Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>DO NOT induce vomiting. Get immediate medical attention</td>
</tr>
<tr>
<td>Eye</td>
<td>Flush eye(s) with water for at least 15 minutes or until irritation subsides. Get medical attention if eye irritation develops or persists</td>
</tr>
<tr>
<td>Skin</td>
<td>Wash with soap and water. Immediately remove contaminated clothing. Get medical attention if irritation develops. Launder contaminated clothing before re-use. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Vapor pressure is very low. Vapor inhalation under ambient conditions is normally not a problem. If adverse effects are observed, remove exposed person to fresh air. If breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. If overexposed to oil mist, remove from further exposure until excessive oil mist subsides.</td>
</tr>
<tr>
<td>SECTION 5</td>
<td>FIRE FIGHTING MEASURES</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Flash Point</td>
<td>200 ºC COC Typical</td>
</tr>
<tr>
<td>Upper Flammable Limit</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Lower Flammable Limit</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Extinguishing Media</td>
<td>Carbon Dioxide, dry chemical, water spray (fog) and foam. Note: water, water fog and foam may cause frothing and spattering.</td>
</tr>
<tr>
<td>Special Firefighting Procedures</td>
<td>Wear self-contained breathing apparatus. Avoid breathing fumes and vapors. Use water spray (fog) to cool containers exposed to high heat or open flames.</td>
</tr>
<tr>
<td>Unusual Fire and Explosion Hazards</td>
<td>Empty containers contain residue and/or vapors. DO NOT WELD, CUT, PRESSURIZE, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, SPARKS, FLAME, STATIC ELECTRICITY OR OTHER SUCH SOURCES OF IGNITION. Keep empty containers closed and dispose of in an environmentally safe manner and in accordance with all government regulations.</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION 6</th>
<th>ACCIDENTAL RELEASE MEASURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spill Procedures</td>
<td>Evacuate all non-essential personal. Personal Protective Equipment must be worn (see Personal Protection Section for PPE recommendations). Remove sources of ignition. Ventilate spill area. Prevent entry into sewers and waterways. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Assure conformity with applicable Federal, state and local regulations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION 7</th>
<th>HANDLING AND STORAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling Procedures</td>
<td>Keep away from potential sources of ignition. Avoid breathing vapors if present. Keep containers closed when not in use. Wash thoroughly after handling. Make sure that proper warning labels are affixed in accordance with 29 CFR 1910.1200. Use good personal hygiene around product. Do not smoke or eat around product.</td>
</tr>
<tr>
<td>Storage Procedures</td>
<td>Do not store near potential sources of ignition. Store in a well ventilated area. Store in a dry area. Do not store around food or eating areas.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION 8</th>
<th>EXPOSURE CONTROLS / PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilation Procedures</td>
<td>Use material in well ventilated areas only. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits.</td>
</tr>
<tr>
<td>Glove Protection</td>
<td>Use chemical resistant gloves, if needed, to avoid prolonged or repeated skin contact.</td>
</tr>
<tr>
<td>Eye Protection</td>
<td>Safety glasses recommended. Use splash goggles or face shield when eye contact may occur.</td>
</tr>
<tr>
<td>Respiratory Protection</td>
<td>Under normal conditions, respirator is not usually required. Use NIOSH/MSHA approved disposable dust/mist mask if the recommended exposure limit is exceeded.</td>
</tr>
<tr>
<td>Clothing Recommendation</td>
<td>Use a chemical resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing, which could result in prolonged or repeated skin contact.</td>
</tr>
</tbody>
</table>
### SECTION 9  
**PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Brown colored liquid</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.88</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>Greater than 5</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Approx 32 cSt @ 40 °C</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Odor</td>
<td>Typical oil odor</td>
</tr>
<tr>
<td>Pour or Melting Point</td>
<td>-20 °F</td>
</tr>
<tr>
<td>pH</td>
<td>Essentially neutral</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>IBP approximately 600 °F</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Percent Volatile</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Negligible</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>Not Determined</td>
</tr>
</tbody>
</table>

### SECTION 10  
**STABILITY AND REACTIVITY**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Material is normally stable at room temperature and pressure. See the Handling and Storage Section for further details.</td>
</tr>
<tr>
<td>Incompatibility</td>
<td>Strong oxidizing agents.</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Will not occur.</td>
</tr>
<tr>
<td>Thermal Decomposition</td>
<td>Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.</td>
</tr>
</tbody>
</table>

### SECTION 11  
**TOXICOLOGICAL INFORMATION**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Toxicity</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Eye Irritation</td>
<td>Product contacting eyes may cause eye irritation.</td>
</tr>
<tr>
<td>Skin Irritation</td>
<td>May cause skin irritation. Prolonged or repeated contact may cause dermatitis. Symptoms may include redness, edema, drying, defatting and cracking of skin.</td>
</tr>
<tr>
<td>Dermal Toxicity</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Inhalation Toxicity</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Respiratory Irritation</td>
<td>If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.</td>
</tr>
<tr>
<td>Dermal Sensitivity</td>
<td>No data available to indicate product or components may be skin sensitizer.</td>
</tr>
<tr>
<td>Inhalation Sensitivity</td>
<td>No data given to indicate product or components may be respiratory sensitizer.</td>
</tr>
<tr>
<td>Chronic Toxicity</td>
<td>Not Determined</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>The components of this product has not been found to be a carcinogen under either NTP, IARC Monographs or current OSHA regulations.</td>
</tr>
<tr>
<td>Other</td>
<td>Under conditions which may generate mists, observe the OSHA PEL 5 mg/m³.</td>
</tr>
</tbody>
</table>
### SECTION 12 ECOLOGICAL INFORMATION

No Data Given.

### SECTION 13 DISPOSAL CONSIDERATIONS

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>U. S. DOT Shipping Name</td>
<td>Not regulated by DOT</td>
</tr>
<tr>
<td>Hazard Class</td>
<td>Not applicable</td>
</tr>
<tr>
<td>DOT Identification Number</td>
<td>Not applicable</td>
</tr>
<tr>
<td>DOT Shipping Label</td>
<td>Not regulated by DOT</td>
</tr>
</tbody>
</table>

### SECTION 14 WASTE DISPOSAL INFORMATION

| WASTE DISPOSAL | This product is not considered a hazardous waste under RCRA regulations. After use, it is the responsibility of the user to determine the product's status for disposal. This product can be incinerated, if practical, or recycled. |

### SECTION 15 REGULATORY INFORMATION

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>U. S. TSCA Inventory</td>
<td>All components of this product are listed on the TSCA Inventory.</td>
</tr>
<tr>
<td>SARA 302 Threshold Planning Quantity</td>
<td>No RQ for product or any constituent greater than 1.0% or 0.1% (carcinogen).</td>
</tr>
<tr>
<td>SARA 304 Reportable Qty</td>
<td>No RQ for product or any constituent greater than 1.0% or 0.1% (carcinogen).</td>
</tr>
<tr>
<td>SARA 311 Categories</td>
<td>EPA Hazard Classification Code</td>
</tr>
<tr>
<td></td>
<td>Acute</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>SARA 313 Supplier Notification</td>
<td>This product does not contain greater than 1.0% (greater than 0.1% for carcinogenic substances) of any chemical substances listed under SARA Section 313.</td>
</tr>
<tr>
<td>CERCLA Hazardous Substances</td>
<td>No chemicals in this product are subject to the reporting requirements of CERCLA.</td>
</tr>
</tbody>
</table>

### SECTION 16 OTHER INFORMATION

**HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)**

**HEALTH** = 1  **FIRE** = 1  **REACTIVITY** = 0  **PP** = B

**Rating:** 0 = Minimal  1 = Slight  2 = Moderate  3 = Serious  4 = Extreme

Although the information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof, MOTOR OIL makes no representations as to the completeness or accuracy thereof. MOTOR OIL makes no warranty whatsoever, expressed or implied, of MERCHANTABILITY OR FITNESS FOR THE PARTICULAR PURPOSE since the conditions of use are beyond our control. MOTOR OIL assumes no responsibility for injury to recipient or to third persons for any damage to any property and recipient.
SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Barge AP (DC001, DC031, DC111, DC115)

RECOMMENDED USE: Adhesive

MANUFACTURER'S NAME: Slocum Adhesives Corp.
ADDRESS : 2500 Carroll Avenue
Lynchburg, VA 24501

EMERGENCY PHONE : 800-424-9300 (CHEMTREC) DATE PRINTED : 7/27/2012
INFORMATION PHONE : 434-847-5671 DATE REVISED : 05/02/12

SECTION II - HAZARD IDENTIFICATION

DANGER! Flammable liquid. Irritant by inhalation, ingestion, skin contact, eye contact.

ROUTES OF ENTRY
Inhalation, skin absorption, ingestion.

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Breathing high concentrations of vapors may cause irritation of the nose and throat or signs of nervous system depression (i.e. headache, nausea, drowsiness, dizziness, vomiting, loss of coordination and fatigue).

EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE
May cause mild eye irritation. Direct contact with liquid or vapors may cause stinging, tearing, redness, swelling, and eye damage.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
This material may cause mild skin irritation. Prolonged or repeated contact or exposure to vapors may cause redness, burning, and drying and cracking of the skin.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE
Ingestion may cause irritation of the digestive tract, nausea, vomiting, and signs of nervous system depression.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
Pre-existing eye, skin, or respiratory disorders may be aggravated by exposure to this product.

SECTION III - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>REPORTABLE COMPONENTS</th>
<th>CAS NUMBER</th>
<th>VAPOR PRESS.</th>
<th>WT. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Toluene</td>
<td>108-88-3</td>
<td>22.4</td>
<td>35 - 60%</td>
</tr>
<tr>
<td>OSHA PEL: 200 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH TLV: 50 ppm TWA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heptane</td>
<td>142-82-5</td>
<td>36.4</td>
<td>12 - 25%</td>
</tr>
<tr>
<td>OSHA PEL: 500 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH TLV: 400 ppm TWA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethyl Acetate</td>
<td>141-78-6</td>
<td>73.1</td>
<td>5 - 15%</td>
</tr>
</tbody>
</table>
OSHA PEL: 400 ppm
ACGIH TLV: 400 ppm TWA

No additional warnings.

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III.

====== SECTION IV - FIRST AID MEASURES

EMERGENCY AND FIRST AID PROCEDURES:

SKIN: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and wash affected areas thoroughly with mild soap. If irritation develops, seek medical attention.

EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.

INGESTION: Get medical attention. If vomiting occurs, keep head lower than hips to prevent aspiration.

====== SECTION V - FIRE FIGHTING MEASURES

FLASH POINT(°F): 21
FLAMMABLE LIMITS IN AIR (% BY VOL): LOWER: 1.00 UPPER: 11.60

EXTINGUISHING MEDIA: Carbon dioxide, Dry chemicals, Foam.

SPECIAL FIREFIGHTING PROCEDURES

May produce toxic fumes if burning. The use of self-contained breathing apparatus is recommended for fire fighters. Water may be helpful in keeping adjacent containers cool; avoid spreading the liquid with water used for cooling. Dry chemicals, carbon dioxide, etc. may be more efficient at putting out smaller fires. Water-based sprinkler systems may help contain larger fires.

====== SECTION VI - ACCIDENTAL RELEASE MEASURES

Keep sources of ignition isolated from spill. Stop spill/release if it can be done without risk. Wear appropriate protective equipment including respiratory protection as conditions warrant and stay upwind. Prevent material from entering sewers, storm drains, or other natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material. Immediate clean-up of any spill is recommended. Notify fire authorities and appropriate federal, state, and local agencies.

====== SECTION VII - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Avoid extremes of heat or cold. Use and store material in well-ventilated areas away from open flames, heat, hot metal surfaces, and other potential sources of ignition. Bond and ground equipment when transferring from one vessel to another. Store only in approved containers. Personal contact and inhalation should be avoided. Wash hands after use. Do not eat, drink, or smoke in work area.

======== SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION

See Section III for exposure limits of hazardous ingredients.

RESPIRATORY PROTECTION:
Not required if adequate ventilation. If ventilation is not adequate, a suitable NIOSH approved respirator and cartridge should be used.

VENTILATION:
Mechanical ventilation.

PROTECTIVE GLOVES:
Impermeable gloves.

EYE PROTECTION:
Wear safety glasses or goggles to protect against exposure.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:
May use impermeable apron as needed, eye washes, and safety showers.

======== SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Yellow liquid. ODOR: Solvent odor.
pH: Not determined. ODOR THRESHOLD: Not available.
MELT/FREEZE POINT: No data. BOILING POINT(°F): 172
FLASH POINT(°F): See Section V. EVAPORATION RATE: Faster than nBuAc.
FLAMMABILITY (SOLIDS)N/A. LOWER FLAM. LIMIT: 1.00
VAPOR DENSITY: Heavier than air. UPPER FLAM. LIMIT: 11.60
VAPOR PRESSURE: Refer to Section III for vapor pressure values.
SPECIFIC GRAVITY: .881 WEIGHT PER GAL.: 7.3362 lb/gl
SOLUBILITY IN WATER: Insoluble. VISCOSITY: No data.
PARTITION COEFFICIENT (n-octanol/water): No data.
AUTO-IGNITION TEMP.(°F): No data. EXPLOSIVE PROPS: No data.
DECOMPOSITION TEMP. (°F): No data. OXIDIZING PROPS: No data.
VOLATILE (WT.%): 75.3647% VOC CONTENT: 661 g/l
VOC CONTENT LESS WATER & EXEMPT COMPOUNDS: 662 g/l

(Stanard Calculation Method)

======== SECTION X - STABILITY AND REACTIVITY

STABILITY:
Stable.

CONDITIONS TO AVOID:
Avoid extremes of heat or cold.

INCOMPATIBILITY (MATERIALS TO AVOID):
Incompatible with alkali metals, halogens, and strong acids or bases.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:
Carbon monoxide, carbon dioxide, smoke, and other unidentified organic compounds may be formed during combustion.

HAZARDOUS POLYMERIZATION:
Will not occur.
SECTION XI - TOXICOLOGICAL INFORMATION

See Section II for additional information regarding health risks.

CARCINOGENICITY:  NTP CARCINOGEN: No.
IARC MONOGRAPHS: No.
OSHA REGULATED: No.

REPRODUCTIVE TOXICITY: No data.
MUTAGENICITY: No data.
STOT-single exposure: No data.
STOT-repeated exposure: No data.
ASPIRATION HAZARD: No data.

METHYLENE CHLORIDE?: Methylene chloride is not present in this product.

SECTION XII - ECOLOGICAL INFORMATION

AQUATIC TOXICITY: ACUTE AND PROLONGED TOXICITY TO FISH: No data.
ACUTE TOXICITY TO AQUATIC INVERTEBRATES: No data.
ENVIRONMENTAL FATE AND PATHWAYS: No data.
PERSISTENCE & DEGRADABILITY: No data.
BIOACCUMULATIVE POTENTIAL: No data.
MOBILITY IN SOIL: No data.
OTHER ADVERSE EFFECTS: No data.

SECTION XIII - DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable local, state, and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

SECTION XIV - TRANSPORTATION INFORMATION

NOTE: The assignment of Proper Shipping Name is in part a function of the size of the product container and the transport mode. For example, the Proper Shipping Name for a bulk container can differ significantly from the Proper Shipping Name for the same product packaged in a non-bulk container. This can also be true for products shipped via different modes of transportation (i.e. ground, air, ocean). The descriptions provided here are intended to provide some guidance. However, these descriptions may not apply to your package size or mode of shipment.

The U.S. Code of Federal Regulations, 49 CFR - Transportation, regulations, and the policies established by some transporters, require that the shipper properly classify and assign a Proper Shipping Name, and label, mark and package the material properly. Therefore, the user of this information is cautioned to consult with applicable regulations, and with qualified advisors prior to the repackaging and/or reshipment of this or any other product which contains this product.
ORM-D; CONSUMER COMMODITY

DOT (ROAD, RAIL, WATER):
PROPER SHIPPING NAME:  ADHESIVES; UN1133; PG II; CLASS 3

IMDG (ROAD, RAIL, WATER):
PROPER SHIPPING NAME:  ADHESIVES; UN1133; PG II; CLASS 3

========== SECTION XV - REGULATORY INFORMATION
NFPA CODES:  H F R P
             2 3 0 B
CALIFORNIA PROPOSITION 65
WARNING! This product contains the following substance(s) known to the state of California to cause birth defects or other reproductive harm.
TOLUENE TOLUENE;
TOXIC SUBSTANCES CONTROL ACT (TCSA):  All components of this product are included in the TSCA inventory.

========== SECTION XVI - OTHER INFORMATION

The information contained herein is based on the data available to us and is believed to be correct. However, Slocum Adhesives Corporation makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. Slocum Adhesives Corporation assumes no responsibility for injury from the use of the product described herein.

*****     *****     END OF SAFETY DATA SHEET     *****     *****
SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

| Product Name: Premium Plus Interior Flat - Deep Base No. 1300 |
| Product Code: 1300 |
| MSDS Manufacturer Number: 1300 |
| Manufacturer Name: BEHR Process Corporation |
| Address: 3400 W. Segerstrom Avenue Santa Ana, CA 92704 |
| General Phone Number: (714) 545-7101 |
| General Fax Number: (714) 241-1002 |
| Customer Service Phone Number: (800) 854-0133 ext. 2 |
| CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300 |
| Canutec: In Canada, call CANUTEC: (613) 996-6666 (call collect) |
| MSDS Creation Date: August 01, 2004 |
| MSDS Revision Date: January 13, 2013 |

NFPA

1   1   0

HMIS

Health Hazard 1
Fire Hazard 1
Reactivity 0
Personal Protection

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Ingredient Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrophobed polyethylene glycol</td>
<td>No Data</td>
<td>1 - 5 by weight</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>10 - 30 by weight</td>
</tr>
<tr>
<td>Nepheline Syenite</td>
<td>37244-96-5</td>
<td>30 - 60 by weight</td>
</tr>
</tbody>
</table>

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview: Irritant.

Potential Health Effects:

Eye: May cause irritation.

Skin: May cause irritation.

Inhalation: Prolonged or excessive inhalation may cause respiratory tract irritation.

Ingestion: May be harmful if swallowed. May cause vomiting.

Chronic Health Effects: Prolonged or repeated contact may cause skin irritation.

Signs/Symptoms: Overexposure may cause headaches and dizziness.


Aggravation of Pre-Existing Conditions: None generally recognized.

SECTION 4 - FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for 15 to 20 minutes. Get medical attention, if irritation or symptoms of overexposure persists.

Skin Contact: Immediately wash skin with soap and plenty of water. Get medical attention if irritation develops or persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Other First Aid: Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the risk of aspiration.

SECTION 5 - FIRE FIGHTING MEASURES
Flash Point: No Data
Lower Flammable/Explosive Limit: Not applicable.
Upper Flammable/Explosive Limit: Not applicable.
Extinguishing Media: Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.
Protective Equipment: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA Ratings:
NFPA Health: 1
NFPA Flammability: 1
NFPA Reactivity: 0

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personnel Precautions: Use proper personal protective equipment as listed in section 8.
Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.
Spill Cleanup Measures: Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Clean up spills immediately observing precautions in the protective equipment section.

SECTION 7 - HANDLING and STORAGE

Handling: Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing.
Storage: Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, and incompatible substances. Keep container tightly closed when not in use.
Hygiene Practices: Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls: Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
Eye/Face Protection: Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
Skin Protection Description: Chemical-resistant gloves and chemical goggles, face-shield and synthetic apron or coveralls should be used to prevent contact with eyes, skin or clothing.
Respiratory Protection: A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Other Protective: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

EXPOSURE GUIDELINES

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance: Liquid.
Color: White
Boiling Point: No Data
Melting Point: No Data
Density: 10 - 12 Lbs./gal.
Vapor Density: Greater than 1 (Air = 1).
pH: 8.5 to 9.5
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Formula</td>
<td>Mixture</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>Mixture</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No Data</td>
</tr>
<tr>
<td>VOC Content</td>
<td>Material VOC: 1 gm/l (Includes Water)</td>
</tr>
<tr>
<td></td>
<td>Coating VOC: 1 gm/l (Excludes Water)</td>
</tr>
</tbody>
</table>

### SECTION 10 - STABILITY and REACTIVITY

- **Chemical Stability**: Stable under normal temperatures and pressures.
- **Hazardous Polymerization**: Not reported.
- **Conditions to Avoid**: Heat, flames, incompatible materials, and freezing or temperatures below 32 deg. F.
- **Incompatible Materials**: Oxidizing agents, Strong acids and alkalis.

### SECTION 11 - TOXICOLOGICAL INFORMATION

- **Nepheline Syenite**: RTECS Number: QP9365000

### SECTION 12 - ECOLOGICAL INFORMATION

- **Ecotoxicity**: No ecotoxicity data was found for the product.
- **Environmental Fate**: No environmental information found for this product.

### SECTION 13 - DISPOSAL CONSIDERATIONS

- **Waste Disposal**: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

### SECTION 14 - TRANSPORT INFORMATION

- **DOT UN Number**: No Data
- **DOT Hazard Class**: No Data

### SECTION 15 - REGULATORY INFORMATION

- **Nepheline Syenite**:
  - **TSCA Inventory Status**: Not listed
  - **Canada DSL**: Listed

  **WARNING**: This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm.

### SECTION 16 - ADDITIONAL INFORMATION

- **MSDS Creation Date**: August 01, 2004
- **MSDS Revision Date**: January 13, 2013
- **MSDS Revision Notes**: Quarterly formula update
- **MSDS Author**: Actio Corporation

Disclaimer:

This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. We shall ensure, so far as is reasonably practicable, that any revision of this Data Sheet is sent to all customers to whom we have directly supplied this substance, but must point out that it is the responsibility of any intermediate supplier to ensure that such revision is passed to the ultimate user. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment. Should further information be required, this can be obtained through the sales office whose
Section 1: Product and Company Identification

<table>
<thead>
<tr>
<th>Product:</th>
<th>Propane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Odorized Commercial Propane</td>
</tr>
<tr>
<td>Date Issued:</td>
<td>February 8, 2012</td>
</tr>
<tr>
<td>Last Revised:</td>
<td>April 10, 2013</td>
</tr>
<tr>
<td>Company:</td>
<td>Worthington Cylinder Corporation</td>
</tr>
<tr>
<td>Address:</td>
<td>200 Old Wilson Bridge Road</td>
</tr>
<tr>
<td></td>
<td>Columbus, Ohio 43085</td>
</tr>
<tr>
<td>Information:</td>
<td>614-438-7960</td>
</tr>
<tr>
<td>Emergency:</td>
<td>CHEMTREC – (800) 424-9300</td>
</tr>
</tbody>
</table>

Section 2: Hazardous Ingredients and Exposure Limits

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Weight %</th>
<th>OSHA PEL (ppm)</th>
<th>ACGIH TLV (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>87.5 – 100</td>
<td>1000</td>
<td>1000^b</td>
</tr>
<tr>
<td>Ethane</td>
<td>74-84-0</td>
<td>0 – 7.0</td>
<td>1000^a</td>
<td>1000^b</td>
</tr>
<tr>
<td>Propylene</td>
<td>115-07-1</td>
<td>0 – 5.0</td>
<td>1000^a</td>
<td>500</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>0 – 2.5</td>
<td>1000^a</td>
<td>1000^b</td>
</tr>
<tr>
<td>Ethyl Mercaptan (odorant)</td>
<td>75-08-1</td>
<td>&lt;0.0050</td>
<td>10 (Ceiling)</td>
<td>0.5</td>
</tr>
</tbody>
</table>

^a For Liquefied petroleum gas  
^b For Aliphatic hydrocarbon gases

Section 3: Hazards Identification

Propane (also called Liquefied Petroleum Gas or LP-Gas) is a liquid fuel stored under pressure that rapidly turns into a gas at standard atmospheric temperatures and pressure. Propane is extremely flammable and explosive. At high concentrations it acts as a simple asphyxiant by diluting and displacing oxygen, particularly in confined spaces. Direct contact with liquefied product may cause freeze burns and frostbite. Vapor is heavier than air and may accumulate in low-lying areas. Use this product only in well ventilated areas and, where appropriate, proper respiratory protection and personal protective equipment should be worn. An odorant (ethyl mercaptan) is added to provide a strong unpleasant odor akin to rotten eggs.

Section 4: First Aid Measures

**Eye Contact:** Flush eyes with plenty of water for at least 15 minutes while occasionally lifting the eyelids. Seek medical attention.

**Skin Contact:** Remove contaminated clothing. Wash with soap and water. Get medical attention if irritation or redness develops. In case of frostbite, place affected area in warm water or wrap in blankets if warm water is not available. DO NOT USE HOT WATER. Seek immediate medical attention.

**Inhalation:** Remove to fresh air. Administer oxygen or artificial respiration if necessary. Seek immediate medical attention.

**Ingestion:** Risk of ingestion is extremely low. Seek immediate medical attention in cases of ingestion or oral exposure.

Section 5: Fire and Explosion Data

**Fire Hazards:** Extremely flammable. Liquid releases vapors that readily form a flammable mixture with air. Dangerous fire and explosion hazard when exposed to heat, sparks or flame. Vapors are heavier than air and may
accumulate in low-lying areas and form explosive mixtures. Vapors may travel long distances to a point of ignition. Container may explode in heat or flame.
**Flash Point:** -156 °F (-104 °C)
**Auto Ignition:** 842 °F (432 °C)
**Lower Explosion Limit:** 2.15% by volume in air
**Upper Explosion Limit:** 9.6% by volume in air
**Hazardous Combustion Products:** Carbon monoxide, carbon dioxide and various non-combusted hydrocarbons.
**Extinguishing Media:** Dry chemical, foam, carbon dioxide, Halon or water.
**Unusual Fire Hazards:** Use extreme caution when fighting liquefied petroleum gas fires. Heated containers may rupture violently and suddenly without warning due to vessel overpressure (BLEVE-boiling liquid expanding vapor explosions). If safe to do so stop the flow of gas and allow the flame to burn out. Extinguishing the flame before shutting off the supply can cause formation of explosive mixtures. In some cases it may be preferred to allow the flame to continue to burn. Use water to cool equipment, surfaces and containers exposed to fire and excessive heat. Continue use water to cool containers until well after flames are extinguished.

### Section 6: Accidental Release Measures

Evacuate all personnel from the area. Eliminate all sources of ignition. If possible, stop the flow of product. Ventilate the area thoroughly. Take precautions against static discharges. Vapors are heavier than air and may accumulate in low-lying areas and form explosive mixtures with air.

### Section 7: Handling and Storage

**Handling Precautions:** Keep away from flame, sparks and excessive temperatures. Use only in well-ventilated areas. Containers must be grounded to avoid generation of static charges. Do not smoke while handling product. Follow use instructions fully and carefully.

**Storage Requirements:** Store in a cool, dry, well-ventilated area away from sources of ignition, strong oxidizers or other incompatible materials. Keep containers closed at all times. Check regularly for leaks. Ensure equipment is electrically bonded and grounded to prevent static accumulation. Post “No Smoking or Open Flame” signs in the storage and use areas. Protect cylinders against physical damage. Do not cut, drill, grind or weld on empty cylinders since they may contain explosive residues. Do not attempt to refill cylinders.

### Section 8: Exposure Control/Personal Protection

**Occupational Exposure Limits:** See Section 2.

**Engineering Controls:** Good industrial hygiene practice requires that engineering controls be used where feasible to reduce workplace concentrations of hazardous materials.

**Ventilation:** Use adequate ventilation to keep gas and vapor concentrations of this product below the occupational exposure and flammability limits, particularly in confined spaces. Use mechanical ventilation that is explosion proof.

**Respiratory Protection:** Maintain oxygen levels above 19.5% in the workplace. Respirators must be worn if ambient concentrations of contaminants exceed prescribed exposure limits. Seek professional advice prior to respirator selection and use. Select respirator based on its suitability to provide adequate worker protection for given work conditions, level of airborne contamination, and presence of sufficient oxygen. When required, only professionally approved respirators should be used.

**Protective Clothing:** Protective clothing should be worn to prevent skin contact. Protective gloves should be worn as required for welding or burning. Use insulated gloves where there is the possibility of liquid contact.
**Materials Safety Data Sheet**

**Eye Protection**: Use safety glasses or goggles as required for welding or burning. Use splash-proof goggles or faceshield where there is the possibility of liquid contact.

**Section 9: Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>-44 °F (-42 °C) @ 14.7 psia</td>
</tr>
<tr>
<td>Melting Point</td>
<td>-306 °F (-188 °C)</td>
</tr>
<tr>
<td>Specific Gravity of Liquid (water=1)</td>
<td>0.504</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>45</td>
</tr>
<tr>
<td>Appearance</td>
<td>Colorless gas</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure</td>
<td>127 psig @ 70 °F</td>
</tr>
<tr>
<td>Specific Gravity of Vapor (air=1)</td>
<td>1.5 @ 60 °F</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Slight</td>
</tr>
<tr>
<td>Percent Volatile by Weight</td>
<td>100</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorant has a foul smell akin to rotten eggs</td>
</tr>
</tbody>
</table>

**Section 10: Stability and Reactivity**

- **Chemical Stability**: Stable
- **Hazardous Decomposition Products**: Carbon oxides and various hydrocarbons formed when burned.
- **Incompatibility**: Strong oxidizers, strong acids, halogens.
- **Hazardous Polymerization**: Will not occur
- **Conditions to Avoid**: Sources of heat, sparks or flame.

**Section 11: Toxicological Information**

**Overview**: Propane is an anesthetic and is mildly irritating to the mucous membranes. At high concentrations propane acts as a simple asphyxiating agent with no significant potential for systemic toxicity. Direct contact with liquefied product may cause freeze burns and frostbite. Additional data can be found in the Registry of Toxic Effects of Chemical Substances available on-line from the National Institute for Occupational Safety and Health (NIOSH).

- **Primary Entry Routes**: Inhalation
- **Target Organs**: Respiratory system
- **Potential Health Effects**:
  - Inhalation: Product is an anesthetic at high concentrations. Inhalation may cause central nervous system depression producing dizziness, drowsiness, headache, and similar narcotic symptoms. Extremely high concentrations can cause asphyxiation and death by displacing oxygen from the breathing atmosphere.
  - Eyes: Vapor is generally non-irritating to the eyes. Contact with liquefied gas or rapidly expanding gases may cause freeze burns and frostbite.
  - Skin: Vapor is generally non-irritating to the skin. Contact with liquefied gas or rapidly expanding gases may cause freeze burns and frostbite.
  - Ingestion: Ingestion is not likely.
- **Medical Conditions Aggravated by Exposure**: Chronic diseases or disorders of the respiratory system.
- **Carcinogenic Effects**: Propane is not identified as being carcinogenic by the International Agency for Research on Cancer (IARC), The National Toxicology Program (NTP), ACGIH or OSHA.

**Section 12: Ecological Information**

Propane is expected to be inherently biodegradable. Propane is readily degraded by microorganisms and is therefore not expected to bioaccumulate or bioconcentrate in organisms and food chains. Propane emissions would...
have practically no adverse effects on plant growth. Not expected to cause serious soil or groundwater contamination due to rapid evaporation.

Section 13: Disposal Considerations

Use the container until empty. Empty containers have residual vapor that is flammable and explosive. Waste disposal must be in accordance with appropriate federal, state and local regulations.

Section 14: Transport Information

Shipping Name: Liquefied Petroleum Gas
Hazard Class: 2.1 (Flammable Gas)
ID Number: UN 1075
IMO Shipping Name: Propane
IMO Identification Number: UN 1978
Packing Group: Not Applicable
Marking: Propane, UN 1075
Label: Flammable Gas
Placard: Flammable Gas / UN1075
Hazardous Substance/RQ: Not Applicable
Shipping Description: Propane, 2.1 (Flammable Gas), UN 1075

Section 15: Regulatory Information

Users of this product are responsible for their own regulatory compliance on a federal, state (provincial US Federal Regulations:

- OSHA Hazardous Communication (29 CFR Part 1910.1200): This product is hazardous as defined in OSHA’s Hazard Communication standard.
- CERCLA Reportable Quantities (40 CFR Part 302.4): This product is not reportable under 40 CFR Part 302.4.
- SARA 311/312 Hazard Class (40 CFR Part 370): The following hazard categories apply to this product:
  - Acute Health Hazard
  - Fire Hazard
  - Sudden Release of Pressure
- SARA 313 (40 CFR Part 372): This product may contain up to 5.0% propylene (CAS 115-07-1) which is reportable under 40 CFR Part 372.
- TSCA Inventory Status: Propane is listed on the TSCA Inventory.

State Regulations:

- California Proposition 65: This product is not listed.
Section 16: Other Information

Hazard Ratings:
- NFPA: H-1, F-4, R-0
- HMIS®: H-1, F-4, PH-0
- WHIMS: A, B1

The HMIS ratings displayed on this MSDS are from the HMIS Third Edition. There have been significant changes made to the system. “PH” stands for “Physical Hazard” as defined in the OSHA Hazardous Communication Standard and replaces the former code “R” for “Reactivity.”

Disclaimer: All information in this Material Safety Data Sheet is believed to be accurate and reliable. However, no guarantee or warranty of any kind is made with regard to the accuracy of information or the suitability of the recommendations contained herein. It is the user’s responsibility to assess the safety and toxicity of this product under their own conditions of use and to comply with all applicable laws and regulations.
MATERIAL SAFETY DATA SHEET

IDENTITY (AS USED ON LABEL AND LIST)

DICK BLICK PREMIUM TEMPERA

SECTION 1 - MATERIAL IDENTIFICATION AND INFORMATION

(608) 868-6873
EMERGENCY TELEPHONE NUMBER
MAY 2011
DATE PREPARED

SECTION 2 - MATERIAL IDENTIFICATION AND INFORMATION

OTHER LIMITS

COMPONENTS: CHEMICAL NAME & COMMON NAMES | % | OSHA PEL | ACGIH TLV | RECOMMENDED

Contains no hazardous substance per OSHA

29 CFR 1910.1200

Material is a water-based product with the AP Seal. Products with the AP Approved Products Seal of the Art and Craft Materials Institute Inc. are certified in a program of toxicological evaluation by a medium expert to contain no material in sufficient quantities to be toxic or injurious to humans or to cause acute or chronic health problems. These products are certified by the Institute to be in accordance with the voluntary chronic hazard labeling standard ASTM D-4236. In addition, there is no physical hazard as defined within 29 CFR Part 1910.1200 (c).

SECTION 3 - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: Range 215-225F
SPECIFIC GRAVITY (H2O = 1): Range 1.03-1.68

VAPOR PRESSURE (mm Hg & TEMPERATURE): N/A
MELTING POINT: N/A
VAPOR DENSITY (AIR=1): lighter than air
EVAPORATION RATE (WATER = 1): lower than ether
SOLUBILITY IN WATER: completely soluble in water
WATER REACTIVE: N/A
APPEARANCE & ODOR: various colors and odorless

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT & METHOD USED: N/A

FLAMMABILITY LIMITS IN AIR % BY VOLUME: N/A

EXTINGUISHER MEDIA: CO2, Foam or Water

UBL: N/A

SPECIAL FIRE FIGHTING PROCEDURES: None known

UNUSUAL FIRE AND EXPLOSION HAZARDS: None
### SECTION 5 - REACTIVITY HAZARD DATA

<table>
<thead>
<tr>
<th>STABILITY</th>
<th>CONDITIONS TO AVOID</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\checkmark) STABLE</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| INCOMPATIBILITY (MATERIALS TO AVOID) | N/A |

| HAZARDOUS DECOMPOSITION PRODUCTS | N/A |

<table>
<thead>
<tr>
<th>HAZARDOUS POLYMERIZATION</th>
<th>CONDITIONS TO AVOID</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\checkmark) MAY OCCUR</td>
<td>N/A</td>
</tr>
<tr>
<td>N/A WILL NOT OCCUR</td>
<td>None known</td>
</tr>
</tbody>
</table>

### SECTION 6 - HEALTH HAZARD DATA

<table>
<thead>
<tr>
<th>PRIMARY ROUTES OF ENTRY</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>INHALATION</td>
<td></td>
</tr>
<tr>
<td>INGESTION</td>
<td></td>
</tr>
<tr>
<td>SKIN ABSORPTION</td>
<td>NOT HAZARDOUS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CARCINOGEN LISTED IN</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTP</td>
<td>OSHA</td>
</tr>
<tr>
<td>IARC MONOGRAPH</td>
<td>NOT LISTED</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HEALTH HAZARDS</th>
<th>ACUTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHRONIC</td>
<td></td>
</tr>
</tbody>
</table>

| MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE | Not known |

| SIGNS AND SYMPTOMS | Not known |

| EMERGENCY FIRST AID PROCEDURES | Consult a Physician immediately |

### SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE/LEAK PROCEDURES

**STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED**

Usual Clean Up Procedure

**WASTE DISPOSAL METHODS**

Dispose of in accordance with Federal and Local State Regulations

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**

Store at room temperature

**OTHER PRECAUTIONS AND/OR SPECIAL HAZARDS**

Not known

### SECTION 8 - CONTROL AND PROTECTIVE MEASURES

**RESPIRATORY PROTECTION (SPECIFY TYPE)**

None required

**VENTILATION TO BE USED**

None required

**LOCAL EXHAUSE**

N/A

**MECHANICAL (GENERAL)**

EYE PROTECTION | N/A

**SPECIAL**

PROTECTIVE GLOVES | N/A

OTHER PROTECTIVE CLOTHING AND EQUIPMENT | N/A

HYGIENIC WORK PRACTICES | N/A
Safety data sheet
Argoshield Light/Universal/Heavy

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product name
Argoshield Light
Argoshield Universal
Argoshield Heavy

EC No (from EINECS): Mixture not applicable
CAS No: Mixture not applicable
Index-Nr. Mixture not applicable

Chemical formula: Mixture of Ar, CO2 and O2.

REACH Registration number: Not applicable, components are exempt from registration.

1.2. Relevant identified uses of the substance or mixture and uses advised against.
Industrial and professional. Perform risk assessment prior to use.

1.3. Details of the supplier of the safety data sheet
Company identification
BOC, Priestley Road, Worsley, Manchester M28 2UT
E-Mail Address: ReachSDS@boc.com

1.4. Emergency telephone number
Emergency phone numbers (24H): 0800 111 333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification acc. to Regulation (EC) No 1272/2008/EC (CLP/GHS)
Press. Gas (Compressed gas) - Contains gas under pressure; may explode if heated.

Not classified as hazardous to health.
Asphyxiant in high concentrations.
Risk advice to man and the environment
In high concentrations may cause asphyxiation. Compressed gas.

2.2. Label elements
- Labelling Pictograms

SECTION 3: Composition/information on ingredients

Substance / Mixture: Mixture.

3.1. Substances
Not applicable.

3.2. Mixtures

<table>
<thead>
<tr>
<th>Mixture</th>
<th>Contents</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Reg. No.</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide Light</td>
<td>5 %</td>
<td>124-38-9</td>
<td>204-696-9</td>
<td>*1</td>
<td>Not classified as hazardous to health</td>
</tr>
<tr>
<td></td>
<td>Universal</td>
<td>12 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heavy</td>
<td>20 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxygen Light</td>
<td>2 %</td>
<td>7782-44-7</td>
<td>231-956-9</td>
<td>*1</td>
<td>O; R8</td>
</tr>
<tr>
<td></td>
<td>Universal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heavy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argon Light</td>
<td>93 %</td>
<td>7440-37-1</td>
<td>231-147-0</td>
<td>*1</td>
<td>Not classified as hazardous to health</td>
</tr>
<tr>
<td></td>
<td>Universal</td>
<td>86%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heavy</td>
<td>78%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


SECTION 4: First aid measures

4.1. Description of first aid measures
First Aid General Information:
Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

First Aid Inhalation:
Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
SECTION 5: Fire fighting measures

5.1. Extinguishing media
Suitable extinguishing media
All known extinguishants can be used.

5.2. Special hazards arising from the substance or mixture
Specific hazards
Exposure to fire may cause containers to rupture/explode.
Hazardous combustion products
None.

5.3. Advice for fire-fighters
Specific methods
Move container away or cool with water from a protected position.
Special protective equipment for fire-fighters
Normal firefighters’ equipment consists of an appropriate SCBA (open-circuit positive pressure compressed air type) in combination with fire kit. Equipment and clothing to the following standards will provide a suitable level of protection for firefighters.
Guideline:

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation. Prevent from entering sewers, basements and workplaces, or any place where its accumulation can be dangerous.

6.2. Environmental precautions
Try to stop release.

6.3. Methods and material for containment and cleaning up
Ventilate area.

6.4. Reference to other sections
See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Only experienced and properly instructed persons should handle the substance.

or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Keep container valve outlets clean and free from contaminate particularly oil and water. Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to transfer gases from one container to another. Never use direct flame or electrical heating devices to raise the pressure of a container. Do not smoke while handling product. Do not remove or deface labels provided by the supplier for the identification of the container contents.

7.2. Conditions for safe storage, including any incompatibilities
Keep container below 50°C in a well ventilated place. Secure cylinders to prevent them from falling. Clean all regulations and local requirements regarding storage of containers. Stored containers should be periodically checked for general conditions and leakage. Container valve guards or caps should be in place. Store cylinders in location free from fire risk and away from sources of heat and ignition. Keep away from combustible materials. Cylinders should be stored in the vertical position and properly secured to prevent falling over. Containers should not be stored in conditions likely to encourage corrosion.

7.3. Specific end use(s)
None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit value
Carbon dioxide

<table>
<thead>
<tr>
<th>Value type</th>
<th>value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain - STEL</td>
<td>15.000 ppm</td>
<td>EH 40/07</td>
</tr>
<tr>
<td>Great Britain – LTEL</td>
<td>5.000 ppm</td>
<td>EH 40/07</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls
A risk assessment should be conducted and documented in each work area to assess the risks related to the use of the product and to select the PPE that matches the relevant risk. The following recommendations should be considered. Product to be handled in a closed system. Gas detectors should be used when harmful quantities may be released. Keep concentrations well below occupational exposure limits. Oxygen detectors should be used when asphyxiating gases may be released. The substance must be handled in accordance with good industrial hygiene and safety procedures. Consider work permit system e.g. for maintenance activities. Systems under pressure should be regularly checked for leakages. Provide adequate general or local ventilation.
Safety data sheet
Argoshield Light/Universal/Heavy

Creation date: 27.01.2005
Revision date: 07.03.2013
Version: 1.2
GB/E
SDS No.: 9600
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Other protection
Wear working gloves and safety shoes while handling containers.
EN ISO 20345 Personal protective equipment - Safety footwear.

Respiratory protection
Not required.

Thermal hazards
No precautionary measures are necessary.

Environmental Exposure Controls
Specific risk management measures are not required beyond good
industrial hygiene and safety procedures. Refer to local regulations
for restriction of emissions to the atmosphere. See section 13 for

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

General information
Appearance/Colour: Colourless gas.
Odour: None.
Odour threshold:
Mixture not applicable
Melting point: Mixture not applicable
Boiling point: Not known.
Flash point: Not applicable for gases and gas mixtures.
Flammability range: Mixture not applicable
Vapour Pressure 20 °C: Mixture not applicable
Solubility in water: Mixture not applicable
Partition coefficient: n-octanol/water: Mixture not applicable
Autoignition temperature: Mixture not applicable
Explosive properties:
Explosive acc. EU legislation: Not explosive.
Explosive acc. transp. reg.: Not explosive.
Oxidising properties: Not applicable.
Molecular weight: Not known.
Critical temperature: Mixture not applicable
Relative density, liquid (Water=1): Mixture not applicable
Relative density, gas (Air=1): Heavier than air.

9.2. Other information
Not applicable.

SECTION 10: Stability and reactivity

10.1. Reactivity
Unreactive under normal conditions.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None.

10.4. Conditions to avoid
None.

SECTION 12: Ecological information

12.1. Toxicity
Contains CO2 - When discharged in large quantities may contribute
to the greenhouse effect.

12.2. Persistence and degradability
Not applicable.

12.3. Bioaccumulative potential
Not applicable.

12.4. Mobility in soil
The product is a gas, not applicable.
## Safety data sheet
**Argoshield Light/Universal/Heavy**

**Creation date:** 27.01.2005  
**Revision date:** 07.03.2013  
**Version:** 1.2  
**GB / E**  
**SDS No.:** 9600  
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Gases in pressure containers excluding those, which are mentioned under 16 05 04  
**EWC Nr.:** 16 05 05

### SECTION 14: Transport information

#### ADR/RID

14.1. UN number  
1956

14.2. UN proper shipping name  
Compressed Gas, N.O.S. (Argon, Carbon Dioxide)

14.3. Transport hazard class(es)  
Class: 2  
Classification Code: 1A  
Labels: 2.2  
Hazard number: 20  
Tunnel restriction code: (E)  
Emergency Action Code: 2TE

14.4. Packing group (Packing Instruction)  
P200

14.5. Environmental hazards  
None.

14.6. Special precautions for user  
None.

#### IMDG

14.1. UN number  
1956

14.2. UN proper shipping name  
Compressed Gas, N.O.S. (Argon, Carbon Dioxide)

14.3. Transport hazard class(es)  
Class: 2.2  
Labels: 2.2  
EmS: F-C, S-V

14.4. Packing group (Packing Instruction)  
P200

14.5. Environmental hazards  
None.

14.6. Special precautions for user  
None.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Other regulations
Management of Health and Safety at Work Regulations (1999 No. 3242)  
The Regulatory Reform (Fire Safety) Order 2005 (2005 No. 1541)  
Control of Substances Hazardous to Health Regulations (COSHH, 2002 No. 2677)  
Provision and Use of Work Equipment Regulations (PUWER, 1998 No. 2306)  
Personal Protective Equipment Regulations (1992 No. 2966)  
Control of Major Accident Hazards Regulations (COMAH, 1999 No. 743)  
Chemical Hazards Information and Packaging for Supply (CHIP, 1994 No. 3247)  
Pressure Systems Safety Regulations (PER, 2000 No. 128)

This Safety Data Sheet has been produced to comply with Regulation (EU) 453/2010.

#### 15.2. Chemical safety assessment

This product is either exempt from REACH, does not meet the minimum volume threshold for a CSR or the CSA has not yet been carried out.

### SECTION 16: Other information

Ensure all national/local regulations are observed. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

**Advice**

Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted. Details given in this document are believed to be correct at the time of going to press.

**Further information**

**Note:**

When using this document care should be taken, as the decimal sign and its position complies with rules for the structure and decimalization of the Office of international standards, and in a comma or the line.
ISO 10156:2010 Gases and gas mixtures -- Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets.
International Programme on Chemical Safety (http://www.inchem.org/)
National Institute for Standards and Technology (NIST) Standard Reference Database Number 69
The ESIS (European chemical Substances 5 Information System) platform of the former European Chemicals Bureau (ECB) ESIS (http://ecb.jrc.ec.europa.eu/esis/).
The European Chemical Industry Council (CEFIC) ERICards.
Substance specific information from suppliers.
EH40 (as amended) Workplace exposure limits.

End of document
Safety data sheet
Carbon dioxide.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product name
Carbon dioxide.

EC No (from EINECS): 204-696-9
CAS No: 124-38-9
Index-Nr.: -
Chemical formula CO2
REACH Registration number:

1.2. Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses
Industrial and professional. Perform risk assessment prior to use.
Uses advised against
Consumer use.

1.3. Details of the supplier of the safety data sheet
Company identification
BOC, Priestley Road, Worsley, Manchester M28 2UT
E-Mail Address ReachSDS@boc.com

1.4. Emergency telephone number
Emergency phone numbers (24h): 0800 111 333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification acc. to Regulation (EC) No 1272/2008/EC (CLP/GHS)
Press. Gas (Compressed gas) - Contains gas under pressure; may explode if heated.

Not classified as hazardous to health.
Risk advice to man and the environment
Liquefied gas.

2.2. Label elements
- Labelling Pictograms
- Signal word

- Precautionary Statement Storage
P403 Store in a well-ventilated place.

- Precautionary Statement Disposal
None.

2.3. Other hazards
Contact with liquid may cause cold burns/frost bite.

SECTION 3: Composition/information on ingredients

Substance / Mixture: Substance.

3.1. Substances
Carbon dioxide.
CAS No: 124-38-9
Index-Nr.: -
EC No (from EINECS): 204-696-9
REACH Registration number:
Contains no other components or impurities which will influence the classification of the product.

3.2. Mixtures
Not applicable.

SECTION 4: First aid measures

4.1. Description of first aid measures
First Aid General Information:
Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor.
Apply artificial respiration if breathing stopped.

First Aid Inhalation:
Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor.
Apply artificial respiration if breathing stopped.

First Aid Skin / Eye:
In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance. Immediately flush eyes thoroughly with water for at least 15 minutes.

First Aid Ingestion:
Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects, both acute and delayed
In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Low concentrations of CO2 cause increased respiration and headache.

4.3. Indication of any immediate medical attention and special treatment needed

5.3. Advice for fire-fighters
Specific methods
If possible, stop flow of product. Move container away or cool with water from a protected position.

Special protective equipment for fire-fighters
In confined space use self-contained breathing apparatus.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.2. Environmental precautions
Try to stop release.

6.3. Methods and material for containment and cleaning up
Ventilate area.

6.4. Reference to other sections
See also sections 8 and 13.

SECTION 7: Handling and storage
7.1. Precautions for safe handling
Suck back of water into the container must be prevented. Do not allow backfeed into the container. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Check regularly tightness of the plant. Refer to supplier’s handling instructions. The substance must be handled in accordance with good industrial hygiene and safety procedures. Purge system with dry inert gas (e.g. helium or nitrogen) before gas is introduced and when system is placed out of service. Do not smoke while handling product. Only experienced and properly instructed persons should handle gases under pressure. Protect cylinders from physical damage; do not drag, roll, slide or drop. Never use direct flame or electrical heating devices to raise the pressure of a container. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use. Ensure the complete gas system has been (or is regularly) checked for leaks before use. If the user experiences any difficulty operating cylinder valve discontinue use and contact supplier.

7.2. Stability
The substance should be stored in the vertical position and properly secured to prevent falling over. Stored containers should be periodically checked for general conditions and leakage. Container valve guards or caps should be in place. Store containers in location free from fire risk and away from sources of heat and ignition. Keep away from combustible materials.

7.3. Specific end use(s)
None.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Exposure limit value

<table>
<thead>
<tr>
<th>Value type</th>
<th>Value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain - STEL</td>
<td>15,000 ppm</td>
<td>EH 40/07</td>
</tr>
<tr>
<td>Great Britain - LTEL</td>
<td>5,000 ppm</td>
<td>EH 40/07</td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Appropriate engineering controls
Product to be handled in a closed system. Gas detectors should be used when toxic quantities may be released. Keep concentrations well below occupational exposure limits. Oxygen detectors should be used when asphyxiating gases may be released. The substance must be handled in accordance with good industrial hygiene and safety procedures. Consider work permit system e.g. for maintenance activities. Systems under pressure should be regularly checked for leakages. Provide adequate general or local ventilation.

Personal protective equipment
Eye and face protection
Safety eyewear, goggles or face shield to EN166 should be used to avoid exposure to liquid splashes.

Skin protection
Not required

Other protection
Wear leather safety gloves and safety shoes when handling cylinders.

Respiratory protection
Not required

Thermal hazards
Not required

Environmental Exposure Controls
Specific risk management measures are not required beyond good industrial hygiene and safety procedures. Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties
General information
Appearance/Colour: Colourless gas.
Sublimation point: -78.5 ºC
Critical temperature: 31 ºC
Relative density, liquid: 1.03

9.2. Other information
Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

SECTION 10: Stability and reactivity

10.1. Reactivity
Unreactive under normal conditions.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None.

10.4. Conditions to avoid
None.

10.5. Incompatible materials
For material compatibility see latest version of ISO-11114.

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
General
In high concentrations may cause rapid circulatory insufficiency even at normal levels of oxygen concentration. Symptoms are headache, nausea and vomiting, which may lead to unconsciousness and even death.

SECTION 12: Ecological information

12.1. Toxicity
When discharged in large quantities may contribute to the greenhouse effect.

12.2. Persistence and degradability
Not applicable.

12.3. Bioaccumulative potential
Not applicable.

13.1. Waste treatment methods
Do not discharge into any place where its accumulation could be dangerous. Vent to atmosphere in a well ventilated place. Discharge to atmosphere in large quantities should be avoided. Contact supplier if guidance is required.

EWC Nr. 16 05 05

SECTION 14: Transport information

ADR/RID

14.1. UN number
1013

14.2. UN proper shipping name
Carbon dioxide

14.3. Transport hazard class(es)
Class: 2
Classification Code: 2A
Labels: 2.2
Hazard number: 20
Emergency Action Code: 2T

14.4. Packing group (Packing Instruction)
P200

14.5. Environmental hazards
None.

14.6. Special precautions for user
None.

IMDG

14.1. UN number
1013

14.2. UN proper shipping name
Carbon dioxide

14.3. Transport hazard class(es)
Class: 2.2
Labels: 2.2
EmS: FC, SV

14.4. Packing group (Packing Instruction)
P200

14.5. Environmental hazards
None.

14.6. Special precautions for user
None.
14.3. Transport hazard class(es)
Class: 2.2
Labels: 2.2

14.4. Packing group (Packing Instruction)
P200

14.5. Environmental hazards
None.

14.6. Special precautions for user
None.

Other transport information
Avoid transport on vehicles where the load space is not separated from the driver’s compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers ensure that they are firmly secured. Ensure that the cylinder valve is closed and not leaking. Ensure that the valve outlet cap nut or plug (where provided) is correctly fitted. Ensure that the valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Seveso Directive 96/82/EC: Not covered.

15.2. Chemical safety assessment
A CSA does not need to be carried out for this product.

SECTION 16: Other information

Ensure all national/local regulations are observed. The hazard of asphyxiation is often overlooked and must be stressed during operator training. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

Advice
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Further information
Note:
When using this document care should be taken, as the decimal sign and its position complies with rules for the structure and drafting of international standards, and is a comma on the line. As an example 2.000 is two (to three decimal places) and not two thousand.
Safety data sheet
Oxygen, compressed.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product name
Oxygen, compressed.

EC No (from EINECS): 231-956-9
CAS No: 7782-44-7
Index-Nr. 008-001-00-8

Chemical formula O2
Reach Registration number:

1.2. Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses
Industrial and professional. Perform risk assessment prior to use.
Uses advised against
Consumer use.

1.3. Details of the supplier of the safety data sheet
Company identification
BOC, Priestley Road, Worsley, Manchester M28 2UT
E-Mail Address ReachSDS@boc.com

1.4. Emergency telephone number
Emergency phone numbers (24h): 0800 111 333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification acc. to Regulation (EC) No 1272/2008/EC (CLP/GHS)
Press. Gas (Compressed gas) - Contains gas under pressure; may explode if heated.
Ox. Gas 1 - May cause or intensify fire; oxidiser.

O: R8
Contact with combustible material may cause fire.
Risk advice to man and the environment
Compressed gas.

2.2. Label elements
- Labelling Pictograms

Precautionary Statement Response
P370 + P376 In case of fire: Stop leak if safe to do so.

Precautionary Statement Storage
P403 Store in a well-ventilated place.

Precautionary Statement Disposal
None.

SECTION 3: Composition/information on ingredients

Substance / Mixture: Substance.

3.1. Substances
Oxygen, compressed.
CAS No: 7782-44-7
Index-Nr.: 008-001-00-8
EC No (from EINECS): 231-956-9
Reach Registration number:
Contains no other components or impurities which will influence the classification of the product.

3.2. Mixtures
Not applicable.

SECTION 4: First aid measures

4.1. Description of first aid measures
First Aid General Information:
Remove victim to uncontaminated area.

First Aid Inhalation:
Remove victim to uncontaminated area.
First Aid Skin / Eye:
Adverse effects not expected from this product.

First Aid Ingestion:
Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects, both acute and delayed
Continuous inhalation of concentrations higher than 75% may cause nausea, dizziness, respiratory difficulty and convulsion.

4.3. Indication of any immediate medical attention and special treatment needed
None.
Safety data sheet
Oxygen, compressed.

Specific methods
If possible, stop flow of product. Move container away or cool with water from a protected position.

Special protective equipment for fire-fighters
None.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ensure adequate air ventilation. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Eliminate ignition sources. Monitor concentration of released product.

6.2. Environmental precautions
Try to stop release.

6.3. Methods and material for containment and cleaning up
Ventilate area.

6.4. Reference to other sections
See also sections 8 and 13.

SECTION 7: Handling and storage
7.1. Precautions for safe handling
Use no oil or grease. Suck back of water into the container must be prevented. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Keep away from ignition sources (including static discharges). Refer to supplier's handling instructions. Purge system with dry inert gas (e.g. helium or nitrogen) before gas is introduced and when system is placed out of service. Use only with equipment cleaned for oxygen service and rated for cylinder pressure. Do not smoke while handling product. Only experienced and properly instructed persons should handle gases under pressure. Protect cylinders from physical damage; do not drag, roll, slide or drop. Never use direct flame or electrical heating devices to raise the pressure of a container. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use. Ensure the complete gas system has been (or is regularly) checked for leaks before use. If user experiences any difficulty operating cylinder valve discontinue use and contact supplier. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Replace valve outlet components, and protective gear supplied with system.

Containers should not be stored in conditions likely to encourage corrosion. Containers should be stored in the vertical position and properly secured to prevent falling over. Stored containers should be periodically checked for general conditions and leakage. Container valve guards or caps should be in place. Store containers in location free from fire risk and away from sources of heat and ignition. Keep away from combustible materials.

7.3. Specific end use(s)
None.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
No occupational exposure limit.

8.2. Exposure controls
Appropriate engineering controls
Product to be handled in a closed system. The substance must be handled in accordance with good industrial hygiene and safety procedures. Consider work permit system e.g. for maintenance activities. Systems under pressure should be regularly checked for leakages. Provide adequate general or local ventilation. Gas detectors should be used when quantities of oxidising gases may be released.

Personal protective equipment
Eye and face protection
Wear eye protection to EN 166 when using gases.

Skin protection

Other protection
Wear suitable hand, body and head protection. Wear goggles with suitable filter lenses when use is cutting/welding. Avoid oxygen rich (>23,5%) atmospheres. Wear leather safety gloves and safety shoes when handling cylinders.

Respiratory protection
Not required

Thermal hazards
Not required

Environmental Exposure Controls
Specific risk management measures are not required beyond good industrial hygiene and safety procedures. Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties
General information
Appearance/Colour: Colourless gas.
Odour: None.
Melting point: -219 °C
Boiling point: 195.1 °C
9.2. Other information
Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

SECTION 10: Stability and reactivity
10.1. Reactivity
Unreactive under normal conditions.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
Violently oxidises organic material.

10.4. Conditions to avoid
Consider the potential toxicity hazard due to the presence of chlorinated or fluorinated polymers in high pressure (>30 bars) oxygen lines in case of combustion.

10.5. Incompatible materials
Combustible materials. Reducing agents. Organic material. Keep equipment free from oil and grease. For material compatibility see latest version of ISO-11114.

10.6. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information
11.1. Information on toxicological effects
General
No known toxicological effects from this product.

SECTION 12: Ecological information
12.1. Toxicity
No ecological damage caused by this product.

12.2. Persistence and degradability
The substance is naturally occuring.

12.3. Bioaccumulative potential
Not applicable.

12.4. Mobility in soil
The substance is a gas, not applicable.

12.5. Results of PBT and vPvB assessment
Not verified for PBT or vPvB.
14.6. Special precautions for user

None.

Other transport information
Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers ensure that they are firmly secured. Ensure that the cylinder valve is closed and not leaking. Ensure that the valve outlet cap nut or plug (where provided) is correctly fitted. Ensure that the valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Seveso Directive 96/82/EC: Listed

15.2. Chemical safety assessment
A CSA does not need to be carried out for this product.

SECTION 16: Other information

Ensure all national/local regulations are observed. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out. Ensure operators understand the hazard of oxygen enrichment.

Advice
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Further information
Note:
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As an example 2,000 is two (to three decimal places) and not two thousand, whilst 1.000 is one thousand and not one (to three decimal places).

End of document
1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product name: TOP-COTE Aerosol
Product name(s) covered: V205801 - TOP-COTE Aerosol 10.75 oz (Bulk Pack12 per case)
V205805 - TOP-COTE AERO 5.5 OZ BULK-PAK
MSDS name: TOP-COTE Aerosol
CAS number: Mixture
Generic description: Aerosol Spray Flammable
Manufacturer: Bostik, Inc.
211 Boston Street
Middleton, MA 01949 USA
24 hour emergency assistance: Telephone: 1-800-227-0332
General assistance: Telephone: 1-978-777-0100
MSDS assistance: Telephone: 1-414-607-1407

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component(s)</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isooctane</td>
<td>540-84-1</td>
<td>7 - 13</td>
</tr>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>30 - 60</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>10 - 30</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Emergency overview: Product is a flammable aerosol. Pressurized container may explode when exposed to heat or flame. Contact may cause skin and eye irritation. Mist may cause nose and throat irritation. Ingestion will cause nausea, vomiting, pain, upset stomach, and diarrhea.

Potential health effects

- **Skin**: This product may cause irritation to the skin. Prolonged or repeated contact with this product may dry and/or defat the skin. This product may be harmful if it is absorbed through the skin. Contact with liquefied gas may cause frostbite.
- **Eyes**: Liquid or vapors may irritate the eyes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Eye contact may lead to permanent damage if not treated promptly.
- **Inhalation**: This product may cause irritation to the respiratory system. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination. Possibly unconsciousness and asphyxiation.
- **Ingestion**: This product is harmful if swallowed. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.


Signs and symptoms of overexposure: Signs and symptoms of overexposure to this product include headache, irritation of upper respiratory tract, asthmatic symptoms, chest tightness, breathing difficulty, coughing, eye irritation, skin irritation, diarrhea.

4. FIRST AID MEASURES

First aid

- **Skin**: For skin contact, wash immediately with soap and water. If irritation persists, get medical attention.
- **Eye**: Immediately flush with plenty of water for at least 15 minutes, holding eyelids open at all times. Get medical attention immediately.
- **Inhalation**: Move person to non-contaminated air. If the affected person is not breathing, apply artificial respiration. Call a physician if symptoms develop or persist.
If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.

This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately. If overexposure to the solvents in this product is suspected, testing should include nervous system and brain effects including recent memory, mood, concentration, headaches and altered sleep patterns. Liver and kidney function should be evaluated.

5. FIRE FIGHTING MEASURES

Extending media
Use dry chemical, carbon dioxide, or foam. Use water to cool fire-exposed containers and to protect personnel. Do not direct a solid stream of water or foam into hot, burning pools; this may result in frothing and increase fire intensity.

Basic fire fighting procedures
DANGEROUS when exposed to heat or flame. This material can be ignited by flame or spark under all normal atmospheric conditions. Vapors are heavier than air and may travel along the ground to some distance of ignition and flash back. Pressurized Container: May explode when exposed to heat or flame. Empty containers may retain product residue including Flammable or Explosive vapors. Do not cut, drill, grind, or weld near full, partially full, or empty product containers.

Dust explosion hazard
None Known

Sensitivity to mechanical impact
Container could potentially burst or be punctured upon mechanical impact, releasing flammable vapors.

Sensitivity to static discharge
Sparks generated by static discharge may ignite this product or its vapors. All containers and equipment must be bonded or grounded to minimize risk.

Unusual fire & explosion hazards
During a fire, irritating and highly toxic gases may be generated during combustion or decomposition. High temperatures can cause sealed containers to rupture due to a buildup of internal pressures. Cool with water.

Fire fighting equipment/instructions
Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Flash point
-134 °F (-92.2 °C)

6. ACCIDENTAL RELEASE MEASURES

Emergency action
Evacuate the area promptly and keep upwind of the spilled material. Isolate the spill area to prevent people from entering. Keep upwind of the spilled material and isolate exposure. Wear appropriate protective equipment and clothing during clean-up.

Containment
Stop discharge if safe to do so. Stop material from contaminating soil or from entering sewers or water streams. Cover spills with non-flammable absorbent and place in closed chemical waste containers.

Reporting
See Federal reporting requirements listed in Section 15. We recommend you contact local authorities to determine if there may be other local reporting requirements.

7. HANDLING & STORAGE

For Commercial Use Only - Not Packaged or Labeled for Home Use!

Handling
Keep this product from heat, sparks, or open flame. Avoid getting this material into contact with your skin and eyes. Avoid breathing mists or aerosols of this product. Use this product with adequate ventilation. Do not reuse the empty container.

Storage
Store in a cool, dry, well-ventilated area. Do not handle or store near an open flame, heat or other sources of ignition. Keep out of direct sunlight. Do not store above 120 F (49 C).

Empty container precaution
Attention! Follow label warnings even after container is emptied since empty containers may retain product residues. Do not reuse empty container without professional cleaning for food, clothing, or products for human or animal consumption, or where skin contact can occur.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls
Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product. Additional area ventilation or local exhaust may be required to maintain air concentrations below recommended exposure limits. Explosion proof exhaust ventilation should be used.

Eye protection
Wear goggles or safety glasses with side shields.

Skin and body protection
Impervious gloves should be used at all times when handling this product. Recommended gloves include rubber, neoprene, nitrile or viton. Use of protective coveralls and long sleeves is recommended.
9. PHYSICAL & CHEMICAL PROPERTIES

Vapor density
3.4
Target solids
25 %

pH
N/A

Density
0.66 g/cc

Odor threshold
N/A

Octanol/H2O coeff
N/A

Odor
Solvent

Color
None

Physical state
Aerosol

Freeze protect
No

VOC (Volatile Organic Compounds)
357.4 g/l

10. STABILITY & REACTIVITY

Hazardous reactions/decomposition products
Upon decomposition of this product, the following oxides will be produced: Carbon dioxide, carbon monoxide, oxides of sulfur and nitrogen.

Hazardous polymerization
Will not occur.

Conditions to avoid
Keep away from sources of ignition. Avoid contact with Strong Oxidizers, Reducers, Acids and Alkalis.

Stability
Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

Toxicological data
If any toxicological data is available, it will be listed below:

LD50

Toxicology Data - Selected LD50s and LC50s

Acetone 67-64-1  
Inhalation LC50 Rat: 76 mg/L/4H, Oral LD50 Rat: 1800 mg/kg; Dermal LD50 Rabbit: 20000 mg/kg

Isobutane 75-28-5  
Inhalation LC50 Rat: 658 mg/L/4H

Isocynane 540-84-1  
Inhalation LC50 Rat: 37.2 mg/L/4H, Inhalation LC50 Rat: 47.4 mg/L/1H, Oral LD50 Rat: >2500 mg/kg

Propane 74-98-6  
Dermal LD50 Rat: 658 mg/kg

Carcinogenicity
If this product contains any carcinogens, they will be noted below:

12. ECOLOGICAL INFORMATION

VOC (Volatile Organic Compounds)
357.4 g/l

Ecotoxicological information
Organic solvents produce slight to moderate toxicity to aquatic life. Insufficient data exists to evaluate the effect on plants, birds or land animals.

13. DISPOSAL CONSIDERATIONS

It is the obligation of each user of the product mentioned herein to determine and comply with the requirements of all applicable local, state and federal regulations.

Waste disposal
Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.
# 14. TRANSPORT INFORMATION

**DOT**

<table>
<thead>
<tr>
<th>Basic shipping requirements:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>Consumer Commodity</td>
</tr>
<tr>
<td>UN number</td>
<td>ORM-D</td>
</tr>
</tbody>
</table>

**IATA**

<table>
<thead>
<tr>
<th>Basic shipping requirements:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>Aerosols</td>
</tr>
<tr>
<td>Hazard class</td>
<td>2.1</td>
</tr>
<tr>
<td>UN number</td>
<td>UN1950</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional information:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaging exceptions</td>
<td>306</td>
</tr>
<tr>
<td>Packaging non bulk</td>
<td>None</td>
</tr>
<tr>
<td>Packaging bulk</td>
<td>None</td>
</tr>
<tr>
<td>Labels required</td>
<td>2.1</td>
</tr>
</tbody>
</table>

**IMDG**

<table>
<thead>
<tr>
<th>Basic shipping requirements:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>Aerosols</td>
</tr>
<tr>
<td>Hazard class</td>
<td>2.1</td>
</tr>
<tr>
<td>UN number</td>
<td>UN1950</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional information:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaging exceptions</td>
<td>306</td>
</tr>
<tr>
<td>Labels required</td>
<td>2.1</td>
</tr>
</tbody>
</table>

# 15. REGULATORY INFORMATION

This MSDS is prepared and distributed pursuant to the Federal Hazard Communication Standard, 29 CFR 1910.1200.

**Federal regulations**

All components are on the U.S. EPA TSCA Inventory List.

<table>
<thead>
<tr>
<th>CERCLA/SARA - Hazardous Substances and their Reportable Quantities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1 5000 lb final RQ: 2270 kg final RQ</td>
</tr>
<tr>
<td>Isooctane</td>
<td>540-84-1 1000 lb final RQ: 454 kg final RQ</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbonyl fluoride</td>
<td>353-50-4 Section 5</td>
</tr>
<tr>
<td>Xylenes (o-, m-, p- isomers)</td>
<td>1330-20-7 Section 4</td>
</tr>
</tbody>
</table>

**State regulations**

If this product contains any ingredients listed under California Proposition 65, they will be noted below:

- **California - Proposition 65 - Carcinogens List**
  - Ethyl benzene | 100-41-4 [carcinogen, initial date 6/11/04 Trace impurity](#)

**International regulations**

All components are included on the Canadian Domestic Substances List (DSL).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and contains all the information required by the Controlled Products Regulations.

**HMIS Ratings**

<table>
<thead>
<tr>
<th>Health</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>4</td>
</tr>
<tr>
<td>Physical hazard</td>
<td>0</td>
</tr>
<tr>
<td>Personal protection</td>
<td>X</td>
</tr>
</tbody>
</table>

**SARA 311/312 HAZARD CATEGORIES**

<table>
<thead>
<tr>
<th>Immediate Hazard</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delayed Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Pressure Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Reactivity Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

**WHMIS status**

Controlled
WHMIS labeling

WHMIS classification
A - Compressed Gas
B5 - Flammable/Combustible
D2B - Other Toxic Effects-TOXIC

16. OTHER INFORMATION

Disclaimer
The data in this MSDS has been compiled from publicly available sources. This data relates only to the designated product and not to the use of said product in combination with other materials. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Responsibility for proper precautions and safe use of the product lies with the user. All data in this MSDS is typical of the product as a whole, and does not represent any individual lot or batch, therefore, Bostik, Inc. makes no warranty about the accuracy of the data herein and assumes no liability for the use of such data. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Issue date
03/06/2006

Prepared by
Michael Simon

Supercedes
03/03/2006
# Material Safety Data Sheet

## Section 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>BRASSO® MULTI-PURPOSE METAL POLISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSDS#</td>
<td>Not available.</td>
</tr>
<tr>
<td>Validation Date</td>
<td>3/24/2005</td>
</tr>
<tr>
<td>Print Date</td>
<td>3/24/2005</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Reckitt Benckiser North America, Inc.</td>
</tr>
<tr>
<td></td>
<td>Morris Corporate Center IV</td>
</tr>
<tr>
<td></td>
<td>399 Interpace Parkway (P.O. Box 225)</td>
</tr>
<tr>
<td></td>
<td>Parsippany, N.J. 07054-0225</td>
</tr>
<tr>
<td>Product Identifier</td>
<td>Not available.</td>
</tr>
<tr>
<td>Item Number</td>
<td>0024708</td>
</tr>
<tr>
<td>Formula Number</td>
<td>1341-014 (0024708)</td>
</tr>
<tr>
<td>UPC Number</td>
<td>26600-06200 (8 oz.); 26600-76523 (8 oz.); 26600-05315 (1 gal.)</td>
</tr>
</tbody>
</table>

## In case of Emergency:
- Telephone: 800-228-4722
- Chemtrec: 1-800-424-9300 (U.S. & Canada)
- Outside the U.S & Canada (North America), call: 703-527-3887

## Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% by Weight</th>
<th>Exposure Limits : TLV/PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) PETROLEUM DISTILLATE (STODDARD SOLVENT)</td>
<td>8052-41-3</td>
<td>25-30</td>
<td>TWA: 525 (mg/m³) from ACGIH (TLV) [United States]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 100 (ppm) from ACGIH (TLV) [United States]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 2900 (mg/m³) from OSHA (PEL) [United States]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 500 (ppm) from OSHA (PEL) [United States]</td>
</tr>
<tr>
<td>2) DESULFURIZED PETROLEUM DISTILLATE</td>
<td>64742-81-0</td>
<td>30-35</td>
<td>Not available.</td>
</tr>
<tr>
<td>3) SILICA, CRYSTALLINE</td>
<td>14808-60-7</td>
<td>9-12</td>
<td>TWA: 0.1 (mg/m³) from ACGIH (TLV) [United States]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 0.3 (mg/m³) from OSHA (PEL) [United States]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td>4) KAOLIN</td>
<td>1332-58-7</td>
<td>10-15</td>
<td>TWA: 5 (mg/m³) from OSHA (PEL) [United States]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 15 (mg/m³) from OSHA (PEL) [United States]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total Dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 2 (mg/m³) from ACGIH (TLV) [United States]</td>
</tr>
<tr>
<td>5) OLEIC ACID</td>
<td>112-80-1</td>
<td>7-10</td>
<td>Not available.</td>
</tr>
<tr>
<td>6) AMMONIUM HYDROXIDE</td>
<td>1336-21-6</td>
<td>2-3</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

## Section 3. Hazards Identification

### Emergency Overview
- DANGER: HARMFUL OR FATAL IF SWALLOWED. EYE AND SKIN IRRITANT. VAPORS HARMFUL IF INHALED. COMBUSTIBLE. Do not ingest. DO NOT inhale. DO NOT breathe dust from dried product. Use product in a well ventilated area. Keep away from heat, sparks and flame. Keep container closed when not in use. Contains petroleum distillate and silica.
**Section 4. First Aid Measures**

<table>
<thead>
<tr>
<th>Eye Contact</th>
<th>Immediately rinse eyes with water, remove any contact lenses, and continue rinsing eyes for fifteen minutes. Call a doctor or poison control center if symptoms persist.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Contact</td>
<td>In case of skin contact, wash skin thoroughly with soap and water. If irritation persists, consult a physician.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Remove to fresh air. If irritation persists or there is any trouble breathing, get immediate medical attention.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>If swallowed, DO NOT induce vomiting! Rinse mouth with water. IMMEDIATELY contact a physician or poison control center. NEVER give an unconscious person anything to ingest.</td>
</tr>
</tbody>
</table>

**Section 5. Fire and Explosion Data**

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Combustible. See Section 14 for any Shipping Classifications.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>CLOSED CUP: 41.5°C (106.7°F). (Setaflash.)</td>
</tr>
<tr>
<td>Explosive Limits in Air</td>
<td>Not available.</td>
</tr>
<tr>
<td>Products of Combustion</td>
<td>Not available.</td>
</tr>
<tr>
<td>Fire and Explosion Hazards</td>
<td>Keep away from heat, sparks or open flame.</td>
</tr>
<tr>
<td>Fire Fighting Media and Instructions</td>
<td>Use water fog, foam, dry chemical or carbon dioxide. Product will float and can be reignited on surface of water.</td>
</tr>
<tr>
<td>Special Fire Fighting Instructions</td>
<td>The use of a direct stream of water can spread burning liquid. Wear self-contained breathing apparatus and full protective clothing appropriate for fighting a chemical fire.</td>
</tr>
</tbody>
</table>

**Section 6. Accidental Release Measures**

| Accidental Spill  | Small spills: Soak up with an inert absorbent material and dispose of in an appropriate waste container. Wipe surface residue with dry paper towels and discard into trash. Large spills should be diked, contained and collected for later disposal according to local, state or federal regulations. |

**Section 7. Handling and Storage**

| Handling and Storage | DANGER: HARMFUL OR FATAL IF SWALLOWED. EYE AND SKIN IRRITANT. VAPORS HARMFUL IF INHALED. COMBUSTIBLE. Do not ingest. Do NOT inhale. DO NOT breathe dust from dried product. Use product in a well ventilated area. Keep away from heat, sparks and flame. Keep container closed when not in use. Contains petroleum distillates and silica. Store in an area inaccessible to children and pets. Close container after each use. KEEP OUT OF REACH OF CHILDREN. |

**Section 8. Exposure Controls/Personal Protection**

| Ventilation Requirements | None normally required. Use sufficient ventilation to keep hazardous ingredients below their Threshold Limit Values (see Section #2) during major spills, clean-up or fire operations. |
| Eye Protection | Avoid contact with eyes. Emergency responders should wear full eye and face protection. |
**Section 9. Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Description</th>
<th>Odor</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid. (Slightly viscous. Opaque liquid)</td>
<td>Ammoniacal.</td>
<td>Beige to Tan. (Light.)</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable.</td>
<td></td>
</tr>
<tr>
<td>Boiling/Condensation Point</td>
<td>82.22 - 93.33°C (180 - 200°F)</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.97 (Water = 1)</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble.</td>
<td></td>
</tr>
<tr>
<td>Physical Chemical Comments</td>
<td>Not available.</td>
<td></td>
</tr>
</tbody>
</table>

**Section 10. Stability and Reactivity Data**

| Chemical Stability            | The product is stable. |
| Conditions of Instability     | Keep away from heat and open flame. |
| Incompatibility with Various Substances | Strong oxidizing agents. |
| Hazardous Decomposition Products | Carbon monoxide, carbon dioxide and unidentified organic compounds. |
| Hazardous Polymerization      | Will not occur. |

**Section 11. Toxicological Information**

**Exposure effects**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Contact</td>
<td>Eye irritant.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Skin irritant.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful or fatal if swallowed.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Respirable crystalline silica is designated as an IARC Group 1 carcinogen, NTP suspect carcinogen and OSHA suspect carcinogen. However, the silica present in this product is not in a respirable form, when used according to label directions.</td>
</tr>
</tbody>
</table>

**Section 12. Ecological Information**

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>Not available.</th>
</tr>
</thead>
</table>
Section 13. Disposal Considerations

Waste Disposal  Dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>Not regulated (Non Bulk Road / Rail) see 49 CFR 173.150 (f) (2) (3).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>DOT Identification Number</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Packing Group</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Maritime Transportation</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Hazardous Substances Reportable Quantity</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>
| Special Provisions for Transport | IMDG / IMO: See IMDG Code and EMS = F-E, S-E.  
ICAO / IATA: See DG List. |
| TDG Classification | Not regulated (Non Bulk Road / Rail) see TDG Part 2.17.2 & Part 23.2. |
| ADR Classification | Not applicable.                                                     |
| IMDG Classification | UN 1993, Flammable Liquid, N.O.S. (Petroleum Distillate), Class 3, PG III, Limited Quantity. |
| IATA Classification | UN 1993, Flammable Liquid, N.O.S. (Petroleum Distillate), Class 3, PG III |

Section 15. Regulatory Information

| Federal and State Regulations | SARA Title III, Section 313 Toxic Chemical Notification & Release Reporting:  
1) AMMONIUM HYDROXIDE  Not available.  2-3  Not avail  
California Proposition 65: This product contains the following ingredients which require a warning under the Safe Drinking Water & Toxic Enforcement Act:  
1) SILICA, CRYSTALLINE  Not available.  10.5  Not avail |
| Other Classifications | WHMIS (Canada)  Not a WHMIS controlled product. |

Section 16. Other Information

<table>
<thead>
<tr>
<th>HMIS (U.S.A.)</th>
<th>Health Hazard 2  Fire Hazard 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Fire Protection Association (U.S.A.)</td>
<td>Health 2  Reactivity 0</td>
</tr>
</tbody>
</table>
To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.