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Revision 3 \* September 30, 2011

CONFORMS TO THE GLOBALLY HARMONIZED SYSTEM (GHS), ANSI Z400.1-2004, EU DIRECTIVE 91/155/EEC & 99/45/EC, OSHA 29 CFR 1910.1200, NOHSC:2011(2003), AND CANADIAN CPR

# Section 1

#### • PRODUCT AND COMPANY IDENTIFICATION •

#### Section 1

| Product Numbers                                |         | 1   |  |              |                  | 24 hr Emergency                                 |
|--|---------|---|--|--------------|------------------|---|
| Product Name                                   |         | POR-15 Rust Preve   | ntive Paint                            |              |                  | Phone Number                                    |
| Synonyms<br>Products Uses                      |         | None<br>Paint   |  |              |                  | 800-424-9300                                    |
| Revision Number                                |         | 3   |  |              |                  | (Chemtrec)                                      |
| Revision Number                                |         | September 30, 2011  | 1                                      |              |                  | , , ,   |
| Print Date                                     |         | September 30, 2011  |  |              |                  |   |
|  |         | September 30, 2011  |  |              |                  |   |
| MANUF  | ACTURE  | R INFORMATION   |  |              | DISTRIBUTOR      | INFORMATION                                     |
| Company Name                                   |         | POR-15, Inc.  |  | Company Nam  | е                |   |
| Address  |         | PO Box 1235   |  | Address      |                  |   |
|  |         | Morristown NJ 0796  | 2                                      |              |                  |   |
| Phone Number                                   |         | 973-887-1999  |  | Phone Number |                  |   |
| Fax Number 973-887-8007                        |         |   | Fax Number                             |              |                  |   |
|  |         |   |  |              |                  |   |
| Section 2                                      |         | ● HA  | ZARDS IDE                              | NTIFICATI    | ON •             | Section   |
| OSHA Classification<br>European Classification |         | CFR 1910.1200.<br>Carc. Cat. 3<br>Xn, Xi<br>R 15-20-36/37/38-40<br>S 1/2-7/8-23-24-43-4 | 0-42/43-48/20 <sup>;</sup><br>45-53-62 |              |                  | REALTH 2<br>FLAMMABILITY 1<br>PHYSICAL HAZARD 1 |
| WHMIS Classification                           |         | B3, D1A, D2A, D2B   |  |              |                  |   |
| HEALTH   | H HAZAR | DS  |  |              | PHYSICAL HAZA    | RDS   |
| Irritant 🗸                                     | Sensi   | itizer 🗸  | Combustible                            | 1            | Explosive        | Pyrophoric                                      |
| Тохіс  | Highly  | y Toxic 🖌   | Flammable                              |              | Oxidizer         | Water Reactive                                  |
| Corrosive                                      | Carci   | nogenic 🌣   | Compressed                             | Gas          | Organic Peroxide | Unstable  |
|  |         |   |  |              |                  | ¢ See Sectio                                    |
|  |         |   |  |              |                  |   |
|  |         | L   | ABELING RE                             | QUIREMENT    | S                |   |
| CANADA   |         | L/<br>UNITED ST/  | I                                      |              | S<br>& AUSTRALIA | GHS   |



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#### POTENTIAL HEALTH EFFECTS AND SIGNS / SYMPTOMS OF EXPOSURE

Eye Contact Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause temporary corneal injury. Prolonged vapor contact may cause conjunctivitis. Causes irritation with symptoms of reddening, itching, and swelling. Persons previously sensitized can Skin Contact experience allergic skin reaction. Cured material is difficult to remove. Contact with isocyanates can cause discoloration (staining) and hardening of the skin after repeated exposures. Ingestion May cause irritation. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea. Inhalation Diisocyanate vapors or mist can irritate the mucous membranes in the respiratory tract causing running nose, sort throat, coughing, chest discomfort, shortness of breath and reduced lung function. Persons with a preexisting, nonspecific bronchial hyper reactivity can respond to concentrations below the TLV or PEL with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the TLV/PEL may lead to bronchitis, bronchial spasm and pulmonary edema. Chemical or hypersensitivity pneumonitis, with flu-like symptoms, has also been reported. These symptoms can be delayed up to several hours after exposure. Effects of Chronic Exposure Prolonged skin contact can cause in some cases sensitization. Animal tests and other research indicate skin contact with isocyanates can play a roll in causing isocyanate sensitization and respiratory reaction. As a result of repeated overexposure, or a single large exposure, some individuals may develop sensitization to diisocyanates (asthma or asthma-like symptoms) that may cause them to react to a later exposure at levels well below the TLV/PEL. These symptoms could include chest tightness, wheezing, cough, shortness of breath or asthmatic attack, and could be immediate or delayed up to several hours after exposure. Extreme asthmatic reactions can be life threatening. This increased sensitivity can persist for weeks and in severe cases for several years. Sensitization can be permanent. Chronic overexposure to diisocyanates has also been reported to cause lung damage, including fibrosis and a decrease in lung function. Medical Conditions Aggravated Asthma, respiratory disorders, skin allergies, eczema Target Organs Eyes, Skin, Respiratory System, Central Nervous System Routes of Exposure Skin contact, eye contact, inhalation Potential Environmental Effects See Section 12 for environmental effects

### **Section 3**

### • COMPOSITION / INFORMATION ON INGREDIENTS •

Section 3

|    |  |                              |                 |                                    |         |         | % WT    |         |         |
|----|--|------------------------------|-----------------|------------------------------------|---------|---------|---------|---------|---------|
| ID | INGREDIENT   | CAS NUMBER                   | EINECS          | EU CLASSIFICATION                  | BLACK   | SEMI    | CLEAR   | SILVER  | GRAY    |
| 1  | Oxirane, methyl-, polymer with .alphahydro<br>omega-hydroxypoly[oxy(methyl-1,2-ethanediyl)<br>] and 1,1'-methylenebis[isocyanatobenzene]                                   | Trade Secret<br>POR.01109301 | Trade<br>Secret | Xn, Xi; 20-36/37/38-40-42/43-48/20 | 30 - 60 | _       | 30 - 60 | —       | 30 - 60 |
| 2  | Isocyanic acid, polymethylenepolyphenylene<br>ester, polymer with 1,2-ethanediamine,<br>methyloxirane and 1,2-propanediol  | Trade Secret<br>POR.01109302 | Trade<br>Secret | Xn, Xi; 20-36/37/38-40-42/43-48/20 | —       | 30 - 60 | —       | 30 - 60 | -       |
| 3  | Aromatic Naphtha   | 064742-95-6                  | 265-199-0       | 45-65                              | 10 - 30 | 10 - 30 | 15 - 40 | 15 - 40 | 15 - 40 |
| 4  | Propanol, [(1-methyl-1, 2-ethanediyl)bis(oxy)]<br>bis-, polymer with 1-isocyanato-2-<br>[(4-isocyanatophenyl) methyl]benzene and<br>1,1'-methylenebis[4-isocyanatobenzene] | Trade Secret<br>POR.01109303 | Trade<br>Secret | -                                  | 10 - 30 | 10 - 30 | 10 - 30 | 10 - 30 | 10 - 30 |
| 5  | Aliphatic Naphtha  | 064742-88-7                  | 265-191-7       | 65                                 | 10 - 30 | 10 - 30 | —       | —       | —       |
| 6  | Methylene Bisphenyl Isocyanate (MDI)   | 000101-68-8                  | 202-966-0       | Xn, Xi; 20-36/37/38-40-42/43-48/20 | 7 - 13  | 7 - 13  | 7 - 13  | 7 - 13  | 7 - 13  |
| 7  | Aluminum   | 007429-90-5                  | 231-072-3       | F; 10-15                           | _       | _       | _       | 3 - 7   | _       |
| 8  | Carbon Black   | 001333-86-4                  | 215-609-9       | —                                  | 3 - 7   | 3 - 7   | —       | —       | 0.1 - 1 |
| 9  | Methylene Diphenyl Diisocyanate (Crude MDI)  | 026447-40-5                  | 247-714-0       | Xn, Xi; 20-36/37/38-40-42/43-48/20 | 1 - 5   | 3 - 7   | 1 - 5   | 3 - 7   | 1 - 5   |
| 10 | Titanium Dioxide   | 013463-67-7                  | 236-675-5       | —                                  | —       | —       | —       | —       | 1 - 5   |
| 11 | Polymeric DiphenImethane Polyisocyanate  | 009016-87-9                  | _               | _                                  | 1 - 5   | _       | 1 - 5   | _       | 1 - 5   |
| 12 | Hydrotreated Heavy Petroleum Naphtha   | 064742-48-9                  | 265-149-8       | Xn; 65                             |         | —       | _       | 1 - 5   | —       |

Risk Phrases LD50 and LC50 Information Occupational Exposure Limits See Section 15 for risk phrase text See Section 11 for toxicological information See Section 8 for OELs



**Section 4** 

# MATERIAL SAFETY DATA SHEET Revis

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### • FIRST AID MEASURES •

#### **Section 4**

| Ingestion          | DO NOT INDUCE VOMITING! Wash mouth out with water. Do not give anything by mouth to an unconscious individual. Consult a physician.   |
|--------------------|---|
| Skin Contact       | Remove with soap and water, rinsing and repeating for 15 minutes. Use skin cream to counter any resulting dryness. Consult a physician if irritation continues. If large skin area is affected, remove contaminated clothing.   |
| Eye Contact        | Immediately flush with clear water for at least 15 minutes, including under the eyelids. Consult a doctor.  |
| Inhalation         | Immediately move to an area free from exposure with fresh air. If not breathing, give artificial respiration.<br>If breathing is difficult, give oxygen. Get medical attention immediately. Asthmatic symptoms may<br>develop and may be immediate or delayed up to several hours. Extreme asthmatic reactions can be life<br>threatening.  |
| Notes to Physician | <u>Eyes:</u> Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparations as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision. <u>Skin:</u> This product is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. <u>Ingestion:</u> Treat symptomatically. Inducing vomiting is contraindicated because of the irritating nature of the compound. <u>Inhalation:</u> Treat symptomatically. An individual having a dermal or pulmonary sensitization reaction to this product should be removed from further exposure to any diisocyanate. |
| Antidotes          | No specific antidote.   |

## **Section 5**

#### • FIRE FIGHTING MEASURES •

**Section 5** 

**Section 6** 

| Flash Point                           | > 106 °F (41.1 °C)   |
|---------------------------------------|--|
| Autoignition Temperature              | 444 °F (229.0 °C)  |
| Explosive Limits                      | 0.60% to 6.50%   |
| Conditions of Flammability            | Heat, sparks, flame, red hot metal   |
| Extinguishing Media                   | CO2, dry chemical, or universal aqueous film forming foam  |
| Unsuitable Extinguishing Media        | Water jet or water-based fire extinguishers  |
| Hazardous Combustion Products         | Nitrogen oxides, hydrogen cyanide, oxides of carbon (CO, CO2), smoke, and vapors   |
| Sensitivity to Mechanical Impact      | Probably not sensitive as material is stable.  |
| Sensitivity to Static Discharge       | Vapor within the flammable limits may be ignited by a static discharge of sufficient energy.   |
| Special Equipment and Precautions     | Use water spray to cool fire exposed containers, as contents can rupture violently from heat developed pressure. Firemen should wear self-contained breathing apparatus. |
| Special Explosion Hazards             | COMBUSTIBLE LIQUID. Vapors can form an explosive mixture with air and can travel to a source of<br>ignition (spark or flame) and flash back.                             |
| Autoreactivity / Oxidizing Properties | Not available  |

## Section 6

### ACCIDENTAL RELEASE MEASURES

| Personal Precautions      | Use personal protection recommended in Section 8. Isolate hazard area and deny entry to unnecessary and unprotected personnel.   |
|---------------------------|--|
| Environmental Precautions | Keep out of drains, sewers, ditches, and waterways. Avoid use of water.  |
| Containment Procedures    | Released content may be contained with oil/solvent absorbent pads, booms, and/or absorbents.   |
| Cleanup Procedures        | Avoid breathing vapors and ventilate area well. Remove sources of ignition and use non-sparking equipment. Soak up material with inert absorbent and place in safety containers for proper disposal.   |
| Other Information         | The North American Emergency Response Guidebook, the Australian Dangerous Goods-Initial Emergency Response Guide (SAA/SNZ HB 76), or similar resources providing emergency response information for dealing with accidents, spills, leaks, and/or fires involving dangerous goods. |
| Prohibited Materials      | Combustible absorbent material such as sawdust, use of equipment that may cause sparking.  |



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**Reporting Requirements** 

Report releases that reach surface water or groundwater in any amount. Spills, leaks, and overfills from a regulated underground storage tank should also be reported. Reportable quantities for spills onto the ground depend on site conditions, such as the type of soil and the type of material spilled, and Federal and local agencies often have different reportable quantities. If you are unsure of your reporting requirements contact the regulating agency in your area.

#### Section 7

#### HANDLING AND STORAGE

Section 7

Precautions for Safe Handling and Use

KEEP OUT OF THE REACH OF CHILDREN. When using in spray application, conformance to NFPA 33 Spray Applications using Flammable and Combustible Materials is recommended.

Storage Requirements and Conditions

Special Packaging Materials

For storage of all materials, conform to NFPA 30 Flammable and Combustible Liquids. Keep containers tightly closed and stored in a well-ventilated place. Keep away from sources of ignition.

Store in a dry well-ventilated area out of direct sunlight and away from heat and ignition sources. Store within recommended temperature range. Store away from incompatible materials, such as amines, alcohols, acids, bases, metal compounds and water which may react vigorously and/or violently. Not applicable.

Section 8

#### EXPOSURE CONTROLS / PERSONAL PROTECTION •

Section 8

| Occup | ational Exposure Lin      | nits                       |                             |                            |                  |                |              |
|-------|---------------------------|----------------------------|-----------------------------|----------------------------|------------------|----------------|--------------|
| ID    | UNITED STATES<br>OSHA PEL | UNITED STATES<br>NIOSH REL | UNITED STATES<br>NIOSH IDLH | UNITED STATES<br>ACGIH TLV | AUSTRALIA<br>TWA | GERMANY<br>MAK | JAPAN<br>OEL |
| 1     | N/E                       | N/E                        | N/E                         | N/E                        | N/E              | N/E            | N/E          |
| 2     | N/E                       | N/E                        | N/E                         | N/E                        | N/E              | N/E            | N/E          |
| _     |                           |                            |                             |                            |                  |                |              |
| 3     | N/E                       | N/E                        | N/E                         | N/E                        | N/E              | N/E            | N/E          |
| 4     | N/E                       | N/E                        | N/E                         | N/E                        | N/E              | N/E            | N/E          |
| 5     | 500 ppm                   | 350 mg/m3                  | 20000 mg/m3                 | 100 ppm                    | 790 mg/m3        | N/E            | N/E          |
| 6     | 0.02 ppm (C)              | 0.005 ppm                  | 75 mg/m3                    | 0.005 ppm                  | 0.02 mg/m3       | 0.05 mg/m3     | 0.05 mg/m3   |
| 7     | 15 mg/m3                  | 10 mg/m3                   | N/E                         | 10 mg/m3                   | 2 mg/m3          | N/E            | 2 mg/m3      |
| 8     | 3.5 mg/m3                 | 3.5 mg/m3 1750             | 1750 mg/m3                  | 3.5 mg/m3                  | 3 mg/m3          | N/E            | 1 mg/m3      |
| 9     | N/E                       | N/E                        | N/E                         | N/E                        | N/E              | N/E            | N/E          |
| 10    | 15 mg/m3                  | N/E                        | 5000 mg/m3                  | 10 mg/m3                   | 10 mg/m3         | N/E            | 1 mg/m3      |
| 11    | N/E                       | N/E                        | N/E                         | N/E                        | 0.02 mg/m3       | N/E            | N/E          |
| 12    | 5 mg/m3                   | N/E                        | 2500 mg/m3                  | 5 mg/m3                    | 10 mg/m3         | N/E            | 3 mg/m3      |

| ID | CANADA<br>ALBERTA OEL | CANADA<br>BC TWA | CANADA<br>ONTARIO TWAEV | CANADA<br>QUEBEC TWA | MEXICO<br>MPEL-PTA | UNITED KINGDOM<br>WEL | UNITED STATES<br>AIHA WEEL |
|----|-----------------------|------------------|-------------------------|----------------------|--------------------|-----------------------|----------------------------|
| 1  | N/E                   | N/E              | N/E                     | N/E                  | N/E                | N/E                   | N/E                        |
| 2  | N/E                   | N/E              | N/E                     | N/E                  | N/E                | N/E                   | N/E                        |
| 3  | N/E                   | N/E              | N/E                     | N/E                  | N/E                | N/E                   | N/E                        |
| 4  | N/E                   | N/E              | N/E                     | N/E                  | N/E                | N/E                   | N/E                        |
| 5  | 100 ppm               | 290 mg/m3        | 525 mg/m3               | 100 ppm              | 100 ppm            | N/E                   | N/E                        |
| 6  | 0.005 ppm             | 0.005 ppm        | 0.005 ppm               | 0.005 ppm            | 0.02 mg/m3         | 0.02 mg/m3            | N/E                        |
| 7  | 10 mg/m3              | 10 mg/m3         | 10 mg/m3                | 10 mg/m3             | 10 mg/m3           | 10 mg/m3              | N/E                        |
| 8  | 3.5 mg/m3             | 3.5 mg/m3        | 3.5 mg/m3               | 3.5 mg/m3            | 3.5 mg/m3          | 3.5 mg/m3             | N/E                        |
| 9  | N/E                   | N/E              | N/E                     | N/E                  | N/E                | N/E                   | N/E                        |
| 10 | 5 mg/m3               | 10 mg/m3         | 10 mg/m3                | 5 mg/m3              | 10 mg/m3           | 10 mg/m3              | N/E                        |
| 11 | 0.005 ppm             | 0.005 ppm        | N/E                     | 0.005 ppm            | N/E                | 0.02 mg/m3            | N/E                        |
| 12 | 5 mg/m3               | 1 mg/m3          | 5 mg/m3                 | 5 mg/m3              | N/E                | N/E                   | N/E                        |

**Engineering Measures** 

Because of the high potential hazard associated with isocyanates, consider the use of fully enclosed handling systems to control air concentration levels below the recommended exposure levels. Local exhaust ventilation may be necessary wherever materials containing isocyanates are handled, processed or cured, especially if heating or spraying is involved. Supply sufficient air to replace air removed by exhaust ventilation systems.

**Biological Exposure Indices** 

None established.



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General Hygiene Considerations

Avoid breathing vapors and contact with the skin and eyes. Always replace lid when not in use. Keep out the reach of children. Wash hands after use. This product does not present a thermal hazard.

Thermal Hazards

#### PERSONAL PROTECTIVE EQUIPMENT



| Respiratory Protection     | A NIOSH approved air-purifying respirator with an organic vapor cartridge approved for use in isocyanate containing environments may be permissible under certain circumstances where concentrations are expected to exceed exposure limits. In spray applications you must protect against exposure to both vapor and spray mist. Protection provided by air-purifying systems is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, where exposure levels are not known, or any other situation where air purifying respirators may not provide adequate protection. In the United States ensure compliance with OSHA standard 29 CFR 1910.134. |
|----------------------------|--|
| Skin Protection            | Ensure any exposed skin is covered by using chemical protective boots, gloves, coveralls, and/or other<br>resistant protective clothing.   |
| Eye/Face Protection        | Safety glasses with side shields are recommended as a minimum for any type of industrial chemical<br>handling. Where eye contact with this material could occur, chemical splash proof goggles or a full face<br>shield are recommended.   |
| Other Protective Equipment | Safety showers and eye-wash stations should be available in the workplace near where the material will be used.  |

#### Section 9

#### PHYSICAL AND CHEMICAL PROPERTIES

#### Section 9

| Boiling Point      | > 284 °F (140.0 °C)   | Melting / Freezing Point         | Not Available                                       |
|--------------------|---|----------------------------------|---|
| Flash Point        | > 106 °F (41.1 °C)  | Autoignition Temperature, Liquid | 444 °F (229.0 °C)                                   |
| Explosive Limits   | 0.60% to 6.50%  | Decomposition Temperature        | Not Available                                       |
| Flammability       | Class II Liquid   | Density (H2O = 1)                | 1.029 - 1.053 g/cc                                  |
| Molecular Weight   | Not Available   | Weight                           | 8.584 - 8.784 lbs/gal                               |
| Vapor Pressure     | 38 mm Hg  | рН                               | Not Available                                       |
| Vapor Density      | 4.5 g/cc Maximum  | Evaporation Rate (BuAC = 1)      | 4.5 for Solvent                                     |
| Physical State     | Liquid  | Partition Coefficient            | Not Available                                       |
| Viscosity          | 200-500 cps @ 25 °C   | Refractive Index                 | Not Available                                       |
| Odor Threshold     | Not Available   | Heat of Combustion               | Not Available                                       |
| Odor               | Paint-like  | Water Solubility                 | Not Available                                       |
| Appearance / Color | Colored liquid  |                                  |   |
| Percent Volatile   | Black 30% Wt (36% Vol) Max<br>Semi-Gloss 27% Wt (33% Vol) Max<br>Clear 30% Wt (36% Vol) Max<br>Silver 31% Wt (37% Vol) Max<br>Gray 33% Wt (39% Vol) Max | VOC Content                      | 295 g/L<br>270 g/L<br>301 g/L<br>317 g/L<br>333 g/L |
| Percent VOC        | Black 30% Wt (36% Vol) Max<br>Semi-Gloss 27% Wt (33% Vol) Max<br>Clear 30% Wt (36% Vol) Max<br>Silver 31% Wt (37% Vol) Max<br>Gray 33% Wt (39% Vol) Max | HAP Content                      | None<br>None<br>None<br>None                        |



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Solids Content

Black 71% Wt (65% Vol) Max Semi-Gloss 74% Wt (68% Vol) Max Clear 71% Wt (65% Vol) Max Silver 69% Wt (64% Vol) Max Gray 68% Wt (62% Vol) Max

#### Maximum Incremental Reactivity 1.423 1.279 2.245 2.174 2.433

#### Section 10

#### STABILITY AND REACTIVITY

#### Stability Stable Combustible liquid Physical Hazards Moisture, heat, direct sunlight Conditions to Avoid Hazard Polymerization May undergo uncontrolled exothermic polymerization upon contact with incompatible materials, especially strong bases, such as triethylamine and sodium hydroxide, trialkyl phosphines, potassium acetate, many metal compounds soluble in organic media, or if heated above 175 °C. Strong oxidizing agents, alcohols, halogenated hydrocarbons, acids, alkalis, alkali metals, water Material Incompatibility Conditions of Reactivity Heat, sparks, flame, red hot metal **Decomposition Products** 4,4'-Methylene Dianiline (formed by reaction of isocyanates with water)

### Section 11

#### TOXICOLOGICAL INFORMATION •

Section 11

Section 10

| Irritancy of Product     | The following ingredients are skin irritants: Methylene Bisphenyl Isocyanate (MDI), Methylene Diphenyl<br>Diisocyanate (Crude MDI), Polymeric Diphenlmethane Polyisocyanate. The following ingredients are<br>respiratory irritants: Methylene Bisphenyl Isocyanate (MDI), Methylene Diphenyl Diisocyanate (Crude<br>MDI), Polymeric Diphenlmethane Polyisocyanate. |
|--------------------------|---|
| Sensitization to Product | The following ingredients are considered skin and respiratory sensitizers: Methylene Bisphenyl<br>Isocyanate (MDI), Methylene Diphenyl Diisocyanate, Polymeric Diphenlmethane Polyisocyanate.   |
| Carcinogen Data          | Carbon Black is listed with IARC as Class 2B (possible human carcinogen) and is listed with ACGIH as A4 (not classifiable as a human carcinogen). Carbon Black is also listed with the States of California and Minnesota as a known carcinogen.  |
| Reproductive Toxicity    | None of the ingredients are known or suspected reproductive toxins  |
| Teratogenicity           | None of the ingredients are known or suspected teratogens   |
| Mutagenicity             | The following ingredients are considered mutagens: Carbon Black   |
| Synergistic Products     | No known synergistic properties.  |

#### LD50 and LC50 Information

| ID | ORAL LD50         | DERMAL LD50           | INHALATION LC50      |
|----|-------------------|-----------------------|----------------------|
| 1  | Not Available     | Not Available         | Not Available        |
| 2  | Not Available     | Not Available         | Not Available        |
| 3  | 4700 mg/kg, rat   | 4000 mg/kg, rabbit    | 3670 ppm /8hr, rat   |
| 4  | Not Available     | Not Available         | Not Available        |
| 5  | Not Available     | 500 mg/kg, rabbit     | Not Available        |
| 6  | >10000 mg/kg, rat | > 10000 mg/kg, rabbit | 490 mg/m3 /4hr, rat  |
| 7  | Not Available     | Not Available         | Not Available        |
| 8  | > 8000 mg/kg, rat | >3000 mg/kg, rabbit   | Not Available        |
| 9  | 9200 mg/kg, rat   | >10000 mg/kg, rabbit  | 490 mg/m3 /4hr, rat  |
| 10 | >24000 mg/kg, rat | >10000 mg/kg, rabbit  | >6.82 mg/L /4hr, rat |
| 11 | >10000 mg/kg, rat | >6200 mg/kg, rabbit   | 490 mg/m3 /4hr, rat  |
| 12 | >5000 mg/kg, rat  | >2000 mg/kg, rabbit   | Not Available        |



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### Section 12

• ECOLOGICAL INFORMATION •

### Section 12

| Mobility                   | Not Available  | Degradibility   | Not Available |  |  |
|----------------------------|--|-----------------|---------------|--|--|
| Persistance                | Not Available  | Bioaccumulation | Not Available |  |  |
| Other Ecologic Data        | Do not allow to enter waters, waste water, or soil.            |                 |               |  |  |
| Effects on the Ozone Layer | This product does not contain any ozone depleting ingredients. |                 |               |  |  |

| Ecoto | kicity                  |                         |                        |                      |
|-------|-------------------------|-------------------------|------------------------|----------------------|
| ID    | FISH                    | INVERTEBRATES           | AQUATIC PLANTS         | MICROORGANISMS       |
| 1     | Not Available           | Not Available           | Not Available          | Not Available        |
| 2     | Not Available           | Not Available           | Not Available          | Not Available        |
| 3     | LC50: 320 mg/L /48 hr   | EC50: 170 mg/L /24 hr   | EC50: 56 mg/L /72 hr   | Not Available        |
| 4     | Not Available           | Not Available           | Not Available          | Not Available        |
| 5     | Not Available           | Not Available           | Not Available          | Not Available        |
| 6     | LC50: >500 mg/L /24 hr  | EC50: >500 mg/L /24 hr  | Not Available          | Not Available        |
| 7     | NOEC: >100 mg/L /48 hr  | NOEC: >100 mg/L /48 hr  | NOEC: >100 mg/L /72 hr | Not Available        |
| 8     | NOEC: 1000 mg/L /96 hr  | EC50: >5600 mg/L /24 hr | Not Available          | EC0: >100 mg/L /3 hr |
| 9     | Not Available           | Not Available           | Not Available          | Not Available        |
| 10    | LC50: >1000 mg/L /48 hr | Not Available           | Not Available          | Not Available        |
| 11    | Not Available           | Not Available           | Not Available          | Not Available        |
| 12    | Not Available           | Not Available           | Not Available          | Not Available        |

| Section 13                  | • DISPO   | SAL CONSIDERATIONS •  | Section 13   |
|-----------------------------|---|---|--|
| Waste Disposal              | location. It is the respo<br>and/or disposal method   | nsibility of the user to determine the p<br>ologies for spent materials and resid   | cation can change with product use and<br>proper storage, transportation, treatment,<br>ues at the time of disposition. All waste<br>a national, federal, state, and local codes.  |
| Waste Disposal of Packaging | pickup. – For disposal<br>for landfill, containers re<br>weld, braze, solder, dril<br>other sources of ignition<br>residue is difficult to rem<br>returned to a drum reco | of large containers (typically 10 gallor<br>tain residue (liquid and/or vapor) and c<br>l, grind, or expose such containers to<br>n; they may explode and cause injury<br>ove. Empty drums should be complete | ntainers can be disposed of regular trash<br>n or larger), or for containers not suitable<br>can be dangerous. Do not pressurize, cut,<br>n heat, flame, sparks, static electricity, or<br>or death. Do not attempt to clean since<br>ly drained, properly bunged, and promptly<br>be disposed of in an environmentally safe |
| Landfill Precautions        | Not Available   | Incineration Precautions  | Not Available  |

# Section 14

### • TRANSPORTATION INFORMATION •

Section 14

| DOT SHIPPING INFORMATION (United States)   PROPER SHIPPING NAME: Consumer Commodity   HAZARD CLASS: ORM-D   PACKING GROUP: -   UN or ID NUMBER: -   NAERG GUIDE NUMBER: 171   | ICAO/IATA SHIPPING INFORMATION (International Air)<br>PROPER SHIPPING NAME: Consumer Commodity<br>HAZARD CLASS:  |
|---|--|
| IMDG SHIPPING INFORMATION (International Ocean)   | ADR SHIPPING INFORMATION (European Union)  |
| PROPER SHIPPING NAME: Paint Related Material,<br>Limited Quantity   CLASS: 3   PACKAGING GROUP: III   SUBSIDIARY RISK(S): -   UN or ID NUMBER: UN1263   PACKING INSTRUCTIONS: P001   Ems NO.: F-E, S-E   STOWAGE: Category B   MFAG NO.: 310, 313 | PROPER SHIPPING NAME: Paint Related Material,<br>Limited Quantity   ADR CLASS: 3   PACKAGING GROUP: 11   UN or ID NUMBER: UN1263   CLASSIFICATION CODE: F1   HAZARD IDENTIFICATION NO: 33   EMERGENCY ACTION CODE: • 3YE |



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#### **TDG SHIPPING INFORMATION (Canada)**

PROPER SHIPPING NAME: Paint Related Material, Limited Quantity HAZARD CLASS: J PACKAGING GROUP: III UN or ID NUMBER: UN1263

#### **NMFC DESCRIPTION (United States)**

ITEM DESCRIPTION:Paint Related MaterialITEM NUMBER:149980 Sub 2CLASS:55

### Section 15

LIMITED

QUANTITY

#### REGULATORY INFORMATION •

#### Section 15

#### United States - Federal

|    | TSCA      | SARA 302 |      |        |          |      |            | SARA 311/312 |         | _        | CLEAN   | CLEAN     |
|----|-----------|----------|------|--------|----------|------|------------|--------------|---------|----------|---------|-----------|
| ID | INVENTORY | EHS      | RCRA | CERCLA | SARA 313 | FIRE | REACTIVITY | ACUTE        | CHRONIC | PRESSURE | AIR ACT | WATER ACT |
| 1  | ~         | —        | —    | —      | —        | —    | —          | —            | —       | —        | —       |           |
| 2  | ~         | —        | _    | —      | —        | —    | —          | —            | —       | —        | —       | —         |
| 3  | ~         | —        | —    | —      | —        | 1    | —          | 1            | 1       | —        | —       | —         |
| 4  | ~         | —        | _    | —      | —        | —    | —          | _            | —       |          | _       | —         |
| 5  | ~         | —        | —    | —      | —        | 1    | —          | 1            | 1       | —        | —       | —         |
| 6  | ~         | —        | _    | 5000#  | 10 %     | —    |            | 1            | 1       |          | —       |           |
| 7  | ~         | —        | —    | —      | 5 %      |      | —          | —            | —       | —        | —       | —         |
| 8  | ~         | —        | _    | —      | —        | —    | —          | 1            | 1       |          | _       | —         |
| 9  | ~         | —        | —    | —      | —        | —    | —          | 1            | 1       | —        | —       | —         |
| 10 | ~         | —        | _    | —      | —        | —    | —          | _            | —       |          | _       | —         |
| 11 | 1         | —        | —    | _      | —        | —    |            | 1            | 1       | —        | —       | —         |
| 12 | 1         | —        | —    | —      | —        | —    |            | 1            | 1       | —        | _       |           |

| United | States - States |          |         |               |              |           |            |          |            |
|--------|-----------------|----------|---------|---------------|--------------|-----------|------------|----------|------------|
| ID     | CALIFORNIA      | DELAWARE | FLORIDA | MASSACHUSETTS | PENNSYLVANIA | MINNESOTA | NEW JERSEY | NEW YORK | WASHINGTON |
| 1      | _               | —        | —       | _             | —            | _         | —          | —        | —          |
| 2      | —               | —        | —       | —             |              |           | —          |          | —          |
| 3      | —               | —        | —       | —             | —            | —         | —          | —        | —          |
| 4      | —               | —        | _       | _             |              | _         | —          | —        | —          |
| 5      |                 | —        | 1       | 2,4           |              | ANO       |            |          | 1          |
| 6      | —               | 1        | 1       | 2,4 F8 F9     | Е            | ANO       | —          | 1        | 1          |
| 7      | —               | 1        | 1       | 4,5 F1 F9     | E            | А         | 1          | —        | 1          |
| 8      | С               | —        | _       | 2,4 F5        |              | ANOR*     | —          | —        | 1          |
| 9      | —               | —        | —       | —             |              | —         | —          | —        | —          |
| 10     | —               | —        | _       | 4             |              | А         | —          | —        | 1          |
| 11     | —               | 1        | —       | —             | —            | —         | —          | —        | —          |
| 12     | _               | _        | _       |               |              |           | _          |          |            |

| United States - Massachusetts, Right-to-Know Extraordinarily Hazardous Substance List |                   |             |  |  |  |  |  |
|---|-------------------|-------------|--|--|--|--|--|
| TRACE CONTENT   | TRACE COMPONENTS  | CAS NUMBER  |  |  |  |  |  |
| 40-45 ppm   | Hydrochloric Acid | 007647-01-0 |  |  |  |  |  |
| 1 - 5 ppm   | Furan             | 000110-00-9 |  |  |  |  |  |
| 1 - 5 ppm   | Propylene Oxide   | 000075-56-9 |  |  |  |  |  |

#### United States - California, Proposition 65

| TRACE CONTENT | TRACE COMPONENTS            | CAS NUMBER  |
|---------------|-----------------------------|-------------|
| 1 - 5 ppm     | Furan                       | 000110-00-9 |
| 1 - 5 ppm     | Propylene Oxide             | 000075-56-9 |
| < 1 ppm       | Acetaldehyde                | 000075-07-0 |
| < 1 ppm       | Cobalt and Cobalt Compounds | 007440-48-4 |

This product contains chemical(s) known to the State of California to be Carcinogenic. (see table above)

<u>Canada</u>

|    | WHMIS CATEGORIES CHEMICAL LISTS |   |   |     |     |     |     |    |   |     |      |      |     |
|----|---------------------------------|---|---|-----|-----|-----|-----|----|---|-----|------|------|-----|
| ID | Α                               | В | С | D1A | D1B | D2A | D2B | D3 | E | DSL | NDSL | NPRI | CWC |
| 1  | —                               | — | — | —   | —   | —   | —   | —  | — | 1   | —    | —    |     |
| 2  | _                               |   | _ | _   | _   |     | _   |    | _ |     | 1    |      |     |



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|    |   |    |   | WH  | MIS CATEGOR | RIES |     |    |   |     | CHEMIC | AL LISTS |     |
|----|---|----|---|-----|-------------|------|-----|----|---|-----|--------|----------|-----|
| ID | Α | В  | С | D1A | D1B         | D2A  | D2B | D3 | E | DSL | NDSL   | NPRI     | CWC |
| 3  | — | B3 | — | —   | —           | —    | —   | —  | — | 1   | —      | 5        | —   |
| 4  | — | —  | — | _   | _           | _    | —   | —  | _ |     | 1      | —        |     |
| 5  | — | B3 | — | —   | —           | 1    | —   | —  | — | 1   | —      | 5        | —   |
| 6  | _ |    | — | 1   | —           | 1    | 1   | —  | — | 1   |        | 1A       | —   |
| 7  | — | B6 | — | —   | —           | —    | —   | —  | — | 1   | —      | 1A       | —   |
| 8  | — | —  | — | _   | —           | 1    | —   | —  | — | 1   | —      | —        | —   |
| 9  | — | —  | — | —   | —           | —    | —   | —  | — | 1   | —      | —        | —   |
| 10 | — | —  | — | _   | _           | 1    | —   | —  | _ | 1   | —      | —        |     |
| 11 | — |    | — | 1   | —           | 1    | 1   | —  | — | 1   | —      | 1A       | —   |
| 12 | _ |    | _ | _   | _           | _    | _   | _  | _ | /   | _      | 5        | —   |

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

#### European Union

| European enion |  |
|----------------|--|
| CODE           | RISK PHRASES   |
| R 15           | Contact with water liberates extremely flammable gases                               |
| R 20           | Harmful by inhalation  |
| R 36/37/38     | Irritating to eyes, respiratory system, and skin                                     |
| R 40           | Possible risks of irreversible effects   |
| R 42/43        | May cause sensitization by inhalation and skin contact                               |
| R 45           | May cause cancer   |
| R 48/20        | Harmful: danger of serious damage to health by prolonged exposure through inhalation |
| R 65           | Harmful: may cause lung damage if swallowed  |

| CODE  | SAFETY PHRASES   |
|-------|--|
| S 1/2 | Keep locked up and out of the reach of children                      |
| S 7/9 | Keep container tightly closed and in a well ventilated place         |
| S 23  | Do not breath gas/fumes/vapour/spray                                 |
| S 43  | In case of fire use dry chemical                                     |
| S 53  | Avoid exposure   |
| S 62  | If swallowed do not induce vomiting, seek medical advise immediately |

**RoHS** Compliance



This product is RoHS compliant according to the definitions and restrictions given by Directive 2002/95/EC and The Council of January 27, 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Australia **Poisons Schedule Number** 

None of the ingredients are present at or above a concentration necessary for allocation of a Poisons Schedule Number.

**Chemical Inventory Status** 

All of the ingredients are listed on the Australian Inventory of Chemical Substances (AICS) or are exempt.

Section 16

### OTHER INFORMATION •

#### Section 16

| Disclaimer of Liability | The information contained herein is based upon data provided to us by our suppliers, and reflects our best judgement. However, no warranty of merchantability, fitness for any use, or any other warranty or guarantee is expressed or implied regarding the accuracy of such data, or the results to be obtained from use thereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, we do not assume any responsibility for the results of such application. This information is furnished upon the condition that the persons receiving it shall make their own determinations of the suitability of the material for any particular use. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. |
|-------------------------|---|
| Revision History        | Revision 1, 08/11/2010, Original<br>Revision 2, 07/27/2011, Added CAS and EC Numbers for some of the ingredients<br>Revision 3, 09/30/2011, Corrected VOC Content values and trade secret information   |