SAFETY DATA SHEET

Prepared to U.S. OSHA, Canadian WHMIS Standards, and the Global Harmonization Standard

DATE OF PREPARATION: September 8, 2000
DATE OF REVISION: July 20, 2017

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING

IDENTIFICATION of the SUBSTANCE or PREPARATION:
TRADE NAME: NOVUS PLASTIC POLISH #1 (Plastic Clean & Shine, NOVUS No 1)
PRODUCT CODES: 7020, 7024, 7026, 7050

RELEVANT USES of the SUBSTANCE:
Clean and Restore Plastic Surfaces

USES ADVISED AGAINST:
Other than Relevant Use, Including Glass Polishing

COMPANY/UNDERTAKING IDENTIFICATION:
U.S. DISTRIBUTOR’S NAME: NOVUS, INC.
ADDRESS: 650 Pelham Boulevard, Suite 100
St Paul, MN  55114

CANADIAN DISTRIBUTOR’S NAME: FIX AUTO
ADDRESS: 99 Émilien-Marcoux Suite 101
Blainville, Québec J7C 0B4, Canada

EMERGENCY PHONE (medical): 1-800-420-8036
EMERGENCY PHONE (transport): United States/Canada/Puerto Rico: 1-800/424-9300 (Chemtrec) [24-hrs]

EMAIL ADDRESS FOR SDS INFORMATION: msds-info@novusglass.com

2. HAZARD IDENTIFICATION

This product has been classified under OSHA’s Hazard Communication Standard (29CFR §1910.1200), and Canadian WHMIS (HPR). This is a self-classification.

GHS CLASSIFICATION:
Skin Irritation Category 2, Eye Irritation Category 2B

GHS LABEL ELEMENTS:

Signal Word: Warning
Hazard Statements: H315+H320: Causes skin and eye irritation.
Precautionary Statements:

Prevention: P264: Wash thoroughly after handling.
P280: Wear protective gloves and eye protection.

Response: P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P332 + P337 + P313: If skin irritation occurs or eye irritation persists, get medical attention.
P362: Take off contaminated clothing and wash before reuse.
P321: Specific treatment (remove from exposure and treat symptoms).

Storage: not required.
Disposal: not required.

Hazard Symbols/Pictograms: GHS07
3. COMPOSITION and INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS #</th>
<th>EINECS or ELINCS #</th>
<th>% w/w</th>
<th>GHS Classification</th>
<th>Hazard Statements/Pictograms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>67-63-0</td>
<td>200-661-7</td>
<td>≤ 0.5%</td>
<td>Classification: Flam Liq Cat. 2, Eye Irr Cat. 2A, STOT SE 3</td>
<td>Hazard Symbols/Pictograms: GHS02, GHS07</td>
</tr>
<tr>
<td>Polydimethylsiloxane, Silanol Terminated</td>
<td>70131-67-8</td>
<td>Unlisted</td>
<td>&lt; 5.0%</td>
<td>Classification: Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Dimethylpolysiloxane</td>
<td>63148-62-9</td>
<td>Unlisted</td>
<td>&lt; 2.0%</td>
<td>Classification: Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Chlorallyl-triaza-azoniadamantine Chloride</td>
<td>4080-31-3</td>
<td>Unlisted</td>
<td>0.1 - 1.0%</td>
<td>Classification: Not Applicable</td>
<td></td>
</tr>
<tr>
<td>2-Ethyl Hexanol EO-PO nonionic surfactant</td>
<td>64366-70-7</td>
<td>Unlisted</td>
<td>0 - 1.0%</td>
<td>Classification: Eye Irr Cat. 2A, Skin Irr Cat. 2</td>
<td>Hazard Statement Codes: H319, H315, Hazard Symbols/Pictograms: GHS07</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES: Contaminated individuals must be taken for medical attention if any adverse effects occur. Take a copy of the label and SDS to health professional with victim.

SKIN EXPOSURE: If this material contaminates the skin, begin decontamination with running water. Recommended flushing is for 15 minutes if any sign of skin irritation develops. Contaminated individual should seek immediate medical attention if any adverse exposure symptoms develop.

EYE EXPOSURE: If this product enters the eyes, open contaminated individual's eyes while under gently running water. Use sufficient force to open eyelids. Have contaminated individual "roll" eyes. Minimum flushing is for 20 minutes. Contaminated individual must seek medical attention if adverse effect continues after flushing.

INHALATION: If this product is inhaled, remove contaminated individual to fresh air. Contaminated individual must seek medical attention if adverse effects occur.

INGESTION: If this material is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. If victim is convulsing, maintain an open airway and obtain immediate medical attention.

MOST IMPORTANT SYMPTOMS/EFFECTS (ACUTE AND CHRONIC): See Sections 2 (Hazard Identification) and 11 (Toxicological Information) for description of possible health effects from exposure to this product.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Dermatitis and other pre-existing skin disorders may be aggravated by prolonged overexposure to this product.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT IF NEEDED: Treat symptoms and eliminate overexposure.

5. FIRE-FIGHTING MEASURES

FIRE EXTINGUISHING MEDIA: Use extinguishing material suitable to the surrounding fire, including halon, carbon dioxide, dry chemical and ABC class.

UNSUITABLE FIRE EXTINGUISHING MEDIA: None known.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE: When involved in a fire, this material may decompose and produce irritating vapors and toxic gases (e.g., oxides of silicon and carbon).

   Explosion Sensitivity to Mechanical Impact: Not applicable.
   Explosion Sensitivity to Static Discharge: Not applicable.

SPECIAL PROTECTIVE ACTIONS FOR FIREFIGHTERS: Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move containers from fire area if it can be done without risk to personnel. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.
6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS AND EMERGENCY PROCEDURES: Proper protective equipment should be used. In the event of a spill, clear the area and protect people. Eliminate all sources of ignition before cleanup begins. Use non-sparking tools. The atmosphere must have levels of components lower than those listed in Section 8, (Exposure Controls and Personal Protective Equipment) if applicable, and have at least 19.5 percent oxygen before personnel can be allowed into the area without Self-Contained Breathing Apparatus (SCBA).

PERSONAL PROTECTIVE EQUIPMENT: Use proper protective equipment and non-sparking tools and equipment.
  Small Spills: Wear rubber gloves, splash goggles, and appropriate body protection.

METHODS FOR CLEAN-UP AND CONTAINMENT: Avoid allowing contact with water on spilled substance or inside containers.
  Small Spills: Absorb spilled material with poly pads or other suitable, non-reacting sorbent, avoiding generation of aerosols, wearing gloves, goggles and apron. Place spilled material in appropriate container for disposal, sealing tightly. Remove all residue before decontamination of spill area.
  Large Spills: Access to the spill area should be restricted. Spread should be limited by diking spill area. Absorb spilled liquid with poly pads or other suitable absorbent materials.
  All Spills: Place all spill residue in a double plastic bag or other containment and seal. Decontaminate the area thoroughly. Do not mix with wastes from other materials. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations). For spills on water, contain, minimize dispersion and collect. Dispose of recovered material and report spill per regulatory requirements.

ENVIRONMENTAL PRECAUTIONS: Avoid release to the environment. Run-off water may be contaminated by other materials and should be contained to prevent possible environmental damage.

REFERENCE TO OTHER SECTIONS: See information in Section 8 (Exposure Controls – Personal Protection) and Section 13 (Disposal Considerations) for additional information.

7. HANDLING and STORAGE

TECHNICAL MEASURES:
  See Ventilation and Engineering Controls in Section 8.

PRECAUTIONS FOR SAFE HANDLING:
All employees who handle this material should be trained to handle it safely. Keep container tightly closed when not in use. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors or mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

CONDITIONS FOR SAFE STORAGE:
Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored away from incompatible materials (See Section 10.) Material should be stored in secondary containers or in a diked area, as appropriate. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Storage areas should be made of fire resistant materials. Have appropriate extinguishing equipment in the storage area (such as sprinkler systems or portable fire extinguishers). Empty containers may contain residual product; therefore, empty containers should be handled with care.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS:
  OCCUPATIONAL/WORKPLACE EXPOSURE LIMITS/GUIDELINES:

| CHEMICAL NAME                              | CAS #  | EXPOSURE LIMITS IN AIR |              |              |              |              |
|--------------------------------------------|--------|------------------------|              |              |              |              |
|                                            |        | ACGIH-TLVs              | US OSHA-PELS | NIOSH-RELS   | NIOSH        | OTHER        |
|                                            |        | TWA ppm                | STEL ppm     | TWA ppm      | STEL ppm    | TWA ppm      |
|                                            |        |                        |              |              |              |              |
|                                            |        | 67-63-0                | 200 ppm      | 400 ppm      | 500 ppm     | 400 ppm      |
| Isopropyl Alcohol                         | 67-63-0|                        |              |              |              |              |
|                                            |        | 400 ppm                | 500 ppm      | 500 ppm      | 400 ppm     | 2000 ppm     |
|                                            |        |                        |              |              |              | (based on 10% of LEL) |
|                                            |        | 500 ppm                | 500 ppm      | 400 ppm      | 500 ppm     | 400 ppm      |
|                                            |        | 1989 PEL               |              |              |              |              |
|                                            |        |                        |              |              |              |              |
| Chlorallyl-triazazonia-adamantine Chloride | 4080-31-3| NE                     | NE           | NE           | NE           | NE           |
|                                            |        |                        |              |              |              |              |
| Dimethylpolysiloxane                      | 63148-62-9| NE                     | NE           | NE           | NE           | NE           |
|                                            |        |                        |              |              |              |              |
| 2-Ethyl Hexanol EC-PO nonionic surfactant  | 64366-70-7| NE                     | NE           | NE           | NE           | NE           |
|                                            |        |                        |              |              |              |              |
| Polydimethylsiloxane, Silanol Terminated  | 70131-67-8| NE                     | NE           | NE           | NE           | NE           |

NE = Not Established. See Section 16 for definitions.
8. EXPOSURE CONTROLS - PERSONAL PROTECTION, Continued

**BIOLOGICAL EXPOSURE INDICES:** Currently, there are ACGIH Biological Exposure Indices (BEIs) determined for the components of this product, as follows:

<table>
<thead>
<tr>
<th>CHEMICAL: DETERMINANT</th>
<th>SAMPLING TIME</th>
<th>BEI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol</td>
<td>• Acetone in urine</td>
<td>• End of Shift End of Workweek</td>
</tr>
</tbody>
</table>

**VENTILATION AND ENGINEERING CONTROLS:** Use with adequate ventilation. Use a mechanical fan or vent area to outside. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits provided in this section, if applicable. Use a non-sparking, grounded, explosion-proof ventilation system separate from other exhaust ventilation systems. Exhaust system in manner consistent with prevention of release to atmosphere. An eyewash and safety shower should be readily accessible.

**ENVIRONMENTAL EXPOSURE CONTROLS:** Refer to Sections 6, 7 and 13 for information on controlling exposure to this product to the environment.


**RESPIRATORY PROTECTION:** Maintain the Oxygen level above 19.5% in the workplace and exposure limits below levels given earlier in this section, if applicable. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA’s Respiratory Protection Standard. If necessary, use only respiratory protection authorized in appropriate regulations to assist in equipment selection. The following are NIOSH respiratory protection guidelines for Isopropanol. These guidelines are given to assist in selection of respiratory protective equipment.

**EYE PROTECTION:** Use approved safety goggles or safety glasses. If necessary, refer to appropriate regulations to assist in equipment selection.

**HAND PROTECTION:** Wear butyl rubber, Teflon™, Barricade™, Chemrel™, nitrile or similar gloves for routine industrial use. If necessary, refer to applicable regulations and standards.

**BODY PROTECTION:** Use body protection appropriate for task. If necessary, refer to appropriate regulations to assist in equipment selection.

**HYGIENE:** See Section 7.

9. PHYSICAL and CHEMICAL PROPERTIES

**PHYSICAL STATE:** Thin liquid.

**COLOR:** Translucent, milky.

**MOLECULAR FORMULA:** Mixture.

**MOLECULAR WEIGHT:** Mixture.

**ODOR:** Faint.

**ODOR THRESHOLD:** Not established.

**pH:** Not established.

**MELTING/FREEZING POINT:** Not established.

**BOILING POINT:** Not established.
9. PHYSICAL and CHEMICAL PROPERTIES, continued

FLASH POINT (Pensky-Martens Closed Tester): >93.3°C (200°F).

EVAPORATION RATE (nBuAc = 1): Not established; based on ingredients the comparative evaporation rate is expected to be <1.

FLAMMABLE LIMITS (in air by volume, %): Not established.

VAPOR PRESSURE, mm Hg @ 50°C: Not established.

RELATIVE VAPOR DENSITY (air = 1): Not established; based on ingredients the relative vapor density is expected to be >1.

SPECIFIC GRAVITY (23°C, water = 1): 1.01

SOLUBILITY: Soluble in water.

COEFFICIENT OF OIL/WATER DISTRIBUTION (PARTITION COEFFICIENT): Not established.

AUTOIGNITION TEMPERATURE: Not established.

VISCOSITY (cP): Not established.

10. STABILITY and REACTIVITY

REACTIVITY: Not considered a reactivity hazard.

CHEMICAL STABILITY: Stable under typical, environmental conditions in a workplace in the absence of contaminates.

DECOMPOSITION PRODUCTS: 
- **Combustion**: Silicon, nitrogen and carbon oxides.
- **Hydrolysis**: None known.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong oxidizers, water-reactive materials.

POSSIBILITY OF HAZARDOUS REACTIONS: None known.

CONDITIONS TO AVOID: Exposure to incompatible chemicals, high temperatures.

11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY: Not Classified.

Data for Isopropyl Alcohol:
- LD₅₀ (Oral-Rat) 5045 mg/kg
- LD₅₀ (Skin-Rabbit) 12,800 mg/kg
- LDLo (unreported, man) = 2770 mg/kg
- TDLo (oral, man) = 14,432 mg/kg; Behavioral: coma; Vascular: BP lowering not characterized in autonomic section; Lungs, Thorax, or Respiration: dyspnea
- TDLo (oral, human) = 223 mg/kg; Behavioral: hallucinations, distorted perceptions; Cardiac: pulse rate; Vascular: BP lowering not characterized in autonomic section; TDLo (oral, infant) = 13 gm/kg; Behavioral: somnolence (general depressed activity), irritability; Gastrointestinal: nausea or vomiting
- LDLo (oral, man) = 5272 mg/kg; Behavioral: coma; Vascular: BP lowering not characterized in autonomic section; Lungs, Thorax, or Respiration: chronic pulmonary edema
- LDLo (oral, human) = 3570 mg/kg; Behavioral: coma; Lungs, Thorax, or Respiration: respiratory depression; Gastrointestinal: nausea or vomiting

SKIN CORROSION/IRRITATION: Category 2.

Data for Isopropyl Alcohol:
- Skin Irritancy (rabbit) = 500 mg; mild
11. TOXICOLOGICAL INFORMATION, continued

SERIOUS EYE DAMAGE/IRRITATION: Category 2B.

Data for Isopropyl Alcohol:
   Eye Irritancy (rabbit) = 100 mg; severe
   Eye Irritancy (rabbit) = 10 mg; moderate

RESPIRATORY or SKIN SENSITIZATION: Not Classified.

GERM CELL MUTAGENICITY: Not Classified.

CARCINOGENICITY:
   ISOPROPYL ALCOHOL: ACGIH-TLV-A Compound (Not Classifiable as a Human Carcinogen); IARC-3 Compound (Not Classifiable as to Carcinogenicity to Humans)

REPRODUCTIVE TOXICITY: Not Classified.

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE):

Data for Isopropyl Alcohol:
   TDLo (oral, rat) = 6480 mg/kg/male 26 weeks pre; Reproductive effects
   TCLo (inhalation, rat) = 10,000 ppm/7 hours/female 1–19 days post; Teratogenic effects

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): Not Classified.

SYMPTOMS/EFFECTS AFTER INHALATION: Inhalation is not anticipated to be a significant route of exposure to this product. If mists or sprays of this product are inhaled, they may mildly irritate the nose and other tissues of the upper respiratory system. Symptoms are generally alleviated upon breathing fresh air.

SYMPTOMS/EFFECTS AFTER EYE OR SKIN CONTACT: Depending on the duration and concentration of exposure, eye contact may cause tearing and redness. Skin contact may cause mild redness, discomfort, and irritation. Symptoms are generally alleviated upon rinsing. Repeated skin contact may cause dermatitis (dry, red skin).

SYMPTOMS/EFFECTS AFTER INGESTION: Ingestion is not anticipated to be a likely route of exposure to this product. If this material is swallowed, it may cause headache, nausea, and vomiting.

SYMPTOMS/EFFECTS AFTER SKIN ABSORPTION: Although the Isopropyl Alcohol component of this product can be absorbed through intact skin, skin absorption is not anticipated to cause adverse effects.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ECOTOXICITY: This product has not been tested for ecotoxicity. Aquatic toxicity data for components of this product are provided as follows:

ISOPROPYL ALCOHOL:
   Toxic (Chlorella pyrenoidosa algae) = 17,400 mg/L
   NOEC (Daphnia magna) reproduction = 2,100 mg/L
   NOEC (Daphnia magna) growth = 757 mg/L
   EC50 (Pseudomonas putida, bacteria) 16 hours = 1,050 mg/L
   EC50 (Microcystis aeruginosa, algae) 8 days = 1,000 mg/L
   EC50 (Scenedesmus quadricauda, green algae) 7 days = 1,800 mg/L
   EC50 (Daphnia magna) reproduction = 3,010 mg/L
   EC50 (Uronema parduczi/Chatton-Lwoff, protozoa) = 3,425 mg/L
   LC50 (Semolitus atromaculatus, creek chub) 24 hours = 900 mg/L

ISOPROPYL ALCOHOL (continued):
   EC50 (Entosiphon sulcatum, protozoa) 72 hours = 4,930 mg/L
   EC50 (MicrotoxTM (Photobacterium) test 5 minutes = 22,800 mg/L
   LC50 Streptotokit F (Streptococcus probosideus) test 24 hours = 11,600 mg/L
   LC50 Daphnia magna test 24 hours = 9,500 mg/L
   LC50 Rotokit F (Brachionus calyciflorus) test 24 hours = 28,600 mg/L
   LC50 (Crangon crangon, brown shrimp) 48 hours = (average) 1,400 mg/L
   LC50 (Crangon crangon, brown shrimp) 48 hours = (range) 900-1,950 mg/L
   LC50 (Daphnia magna) = 4,600 mg/L
   LC50 (Crangon crangon, brown shrimp) 98 hours = (average) 1,150 mg/L
   LC50 (Crangon crangon, brown shrimp) 98 hours = (range) 750-1,650 mg/L
   LC50 (Daphnia magna) = 4,600 mg/L
   LC50 (Crystal red carps, goldfish) 24 hours = > 500 mg/L
   LC50 (Pimephales promelas, fathead minnow) 1; 24; 48; 72 and 96 hours = 11,830; 11,160; 11,130; 11,130; 11,130 mg/L
   LC50 (Poecilia reticulata, guppy) 7 days = 7,060 mg/L
   LC100 (crayfish) 24 hours = 1,100 mg/L
12. ECOLOGICAL INFORMATION, continued

PERSISTENCE AND BIODEGRADABILITY: The product has not been tested for persistence or biodegradability. The components of this product are relatively stable under ambient environmental conditions. Additional environmental data for components of this product are available as follows:

**DIMETHYLPOLYSILXOANE:**
- Water Solubility: Insoluble.
- Terrestrial Fate: If released to soil, Dimethyl Siloxane will absorb strongly and will remain essentially immobile. Dimethyl Siloxane will not volatilize to the atmosphere, nor will it biodegrade. Dimethyl Siloxane will not undergo hydrolysis except in clay soils which are known to catalyze this reaction at a rate dependent upon the amount of water present.
- Aquatic Fate: If released to an aquatic environment, Dimethyl Siloxane is expected to absorb strongly to sediment and suspended organic matter. Although insoluble in water, Dimethyl Siloxane is not expected to bioconcentrate, due to its inherent hydrophobicity. Dimethyl Siloxane will not bioconcentrate in fish and aquatic environments as this compound is molecularly too large to pass through biological membranes and concentrate in fatty tissue. Dimethyl Siloxane will hydrolyze in water and will not volatilize to the atmosphere.
- Atmospheric Fate: If released to the atmosphere, Dimethyl Siloxane will only enter the atmosphere if in aerosol form, due to its heavy molecular weight, very low vapor pressure and liquid physical state. The most likely atmospheric fate process is by dry deposition to the surface of the earth.

**ISOPROPYL ALCOHOL:**
- Octanol/Water Partition Coefficient: Log P = 0.34–0.5
- Persistence: If released to the soil, Isopropanol will both rapidly evaporate and leach into the ground due to high vapor pressure and low adsorption to soil. If released to water, Isopropanol will volatilize, with an estimated half-life of 5.4 days. If released to the atmosphere, Isopropanol will photodegrade, with an estimated half-life of one to several days. Due to the solubility of Isopropanol in water, rainout may be significant.
- Biodegradation: In soil, and water, degradation of Isopropanol has not been determined. If soil degradation is not rapid, it will likely leach to groundwater.

**BIO-ACCUMULATION POTENTIAL:** This product has not been tested for bio-accumulation potential.

**MOBILITY:** This product has not been tested for mobility in soil.

**OTHER ADVERSE EFFECTS:** No components of this product are listed as having ozone depletion potential.

**ENVIRONMENTAL EXPOSURE CONTROLS:** Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHODS:** It is the responsibility of the generator to determine at the time of disposal whether the product meets the criteria of a hazardous waste per regulations of the area in which the waste is generated and/or disposed of. Waste disposal must be in accordance with appropriate regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Shipment of wastes must be done with appropriately permitted and registered transporters.

**DISPOSAL CONTAINERS:** Waste materials must be placed in and shipped in impermeable containers. Ensure that any required marking or labelling of the containers be done to all applicable regulations.

**PRECAUTIONS TO BE FOLLOWED DURING WASTE HANDLING:** Wear proper protective equipment when handling waste materials.

**U.S. EPA WASTE NUMBER:** Not applicable.

14. TRANSPORTATION INFORMATION

**U.S. DEPARTMENT OF TRANSPORTATION REGULATIONS:** This product is NOT classified as dangerous goods, per U.S. DOT regulations, under 49 CFR 172.101.

**TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:** This product is NOT considered as Dangerous Goods, per regulations of Transport Canada.

**INTERNATIONAL AIR TRANSPORT ASSOCIATION DESIGNATION:** This material is NOT considered as dangerous goods, per rules of IATA.

**INTERNATIONAL MARITIME ORGANIZATION (IMO):** This product is NOT considered as dangerous goods, per rules of the IMO.

**TRANSPORT IN BULK ACCORDING TO THE IBC CODE:** Not applicable.

**ENVIRONMENTAL HAZARDS:** This product does not meet the criteria of environmentally hazardous according to the criteria of the UN Model Regulations (as reflected in the IMDG Code, ADR, RID, and ADN); components are not specifically listed in Annex III under MARPOL 73/78.
15. REGULATORY INFORMATION

ADDITIONAL U.S. REGULATIONS:
U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act, as follows:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>SARA 302 (40 CFR 355, Appendix A)</th>
<th>SARA 304 (40 CFR Table 302.4)</th>
<th>SARA 313 (40 CFR 372.65)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Isopropyl Alcohol (mfg-strong acid process)

U.S. SARA THRESHOLD PLANNING QUANTITY: No Threshold Planning Quantities for this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): There are no specific reportable quantities for this product or its components.

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory.

STATE REGULATIONS:
CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): No component of this product is on the California Proposition 65 lists.

ADDITIONAL CANADIAN REGULATIONS:
CANADIAN DSL/NDSL INVENTORY: The components of this product are listed on the DSL Inventory.

CANADIAN ENVIRONMENTAL PROTECTION AGENCY (CEPA) PRIORITY SUBSTANCES LISTS: Not applicable.

16. OTHER INFORMATION

PREPARED BY: CHEMICAL SAFETY ASSOCIATES, Inc. • PO Box 1961, Hilo, HI 96721 • (800) 969-4846
NOVUS INC. CHEMISTRY DEPARTMENT • 650 Pelham Boulevard, Suite 100 • St Paul, MN 55114 • (952) 944-8000
REFERENCES AND DATA SOURCES: Contact the supplier for information.

METHODS OF EVALUATING INFORMATION FOR THE PURPOSE OF CLASSIFICATION: Bridging principles were used to classify this product.

REVISION DETAILS:
April 2012: Review and update entire SDS to comply with EU CLP 1272: 2008 and GHS.
October 2012: Review and update to comply with OSHA’s revised Hazard Communication Standard.
October 2015: Review and update as necessary.
March 2017: Review and update to particulars of Canada’s HPR.
DEFINITIONS OF TERMS

A large number of abbreviations and acronyms are used in this document. Some of these are commonly used in the following list:

CAS #: This is the Chemical Abstract Service Number that uniquely identifies each constituent.

EXPOSURE LIMITS IN AIR:
BEI - AGCHI Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the same concentration of the test substance.

CEILING LEVEL: The concentration that shall not be exceeded during any part of the working exposure.

IDLH—Immediately Dangerous to Life and Health: This level represents a concentration from which one can escape within 30 minutes without suffering escape-limiting or permanent injury.

LOQ: Limit of Quantitation.

MAK: Federal Republic of Germany Maximum Concentration Values in the workplace.

NE: Not Established. When no exposure guidelines are established, an entry of NE is made for reference.

NIC: Notice of Intended Change.

NIOH Ceiling: The exposure that shall not be exceeded during any part of the workday. If instantaneous monitoring is not feasible, the ceiling shall be assumed as a 15-minute TWA exposure (unless otherwise specified) that shall not be exceeded at any time during a workday.

NIOH Rel: NIOSH’s Recommended Exposure Limits.

PEL-Permissible Exposure Limit: OSHA’s Permissible Exposure Limits. This exposure limit is the maximum concentration of a substance to which workers may be exposed during an 8-hour workday. This concentration must be tested under high ambient temperatures before ignition can occur. Materials that are highly flammable or have a flash point at or below 22.8°C [70°F] and having a boiling point at or above 38°C [100°F] and below 70°C [158°F] [e.g. OSHA Class IIA and IB]; Materials that on account of their physical form or evaporation conditions can form explosive mixtures with air are readily dispersed in air [e.g., dusts of combustible solids, mists or droplets of flammable liquids]; Materials that burn extremely rapidly, usually by reason of self-contained oxygen [e.g., dry nitrocellulose and many organic peroxides].

PHYSICAL HAZARD:

DEFINITIONS OF TERMS (Continued)

DEFINITIONS OF TERMS
Materials that will burn in air when exposed to a temperature of 816 °C under all ambient temperature conditions, before ignition and combustion can occur. Materials in this degree require considerable preheating, period of 5 minutes in according with Annex D.

Hazardous atmospheres with air, but under high ambient temperatures or under flash point of the solvent. 3 Liquids and solids that can be ignited under almost all ambient temperature conditions. Materials in this degree produce hazardous atmospheres with air under almost all ambient temperatures or, though unaffected by ambient temperatures, are readily ignited under almost all conditions: Liquids having a flash point below 22.8 °C (73°F) and having a boiling point at or above 22.8 °C (73°F) and below 37.8 °C (100°F) (i.e. Class IB and IC liquids). Materials that, on account of their physical form or environmental conditions, can form explosive mixtures with air and are readily dispersed in air. Flammable or combustible dusts with a representative diameter less than 420 microns (40 mesh). Materials that burn with extreme rapidity, usually by reason of self-contained oxygen (e.g. dry nitrocellulose and many organic peroxides). Solids containing greater than 0.5 percent by weight of a flammable or combustible solvent are rated by the closed cup flash point of the solvent. 4 Materials that will rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and will burn readily: Flammable gases. Flammable cryogenic materials. Any liquid or gaseous materials that is liquid under pressure and has a flash point below 22.8 °C (73°F) and a boiling point below 37.8 °C (100°F) (i.e. Class IA liquids). Materials that ignite when exposed to air, Inhalation toxicity less than or equal to 1,000 ppm. Dusts and mists whose LC50 is less than or equal to 50 mg/L for acute inhalation toxicity. Materials that have an estimated instantaneous power density (product of heat of reaction and reaction rate) at 250°C (482°F) below 0.01 W/mL. Other measures of toxicity include oral toxicity is less than or equal to 3,000 ppm.

FLAMMABILITY LIMITS IN AIR: Much of the information related to fire and explosion is derived from the National Fire Protection Association (NFPA). Flash Point - Minimum temperature at which a liquid gives off sufficient vapors to form an ignitable mixture with air. Autoignition Temperature: The minimum temperature required to initiate combustion in air with no other source of ignition. UEL - the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. TOXICOLOGICAL INFORMATION: Human and Animal Toxicology: Possible health hazards as derived from human data, from the results of animal studies, and from the results of testing of other materials of similar chemical composition. Definitions of some terms used in this section are: LD50 - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; LC50 - Lethal Concentration (gases) which kills 50% of the exposed animals; ppm concentration expressed in parts per million of air water; mg/kg = milligram of substance per kilogram of body weight. Other Information: BEI - ACGIH Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy human exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV.
DEFINITIONS OF TERMS (Continued)

ECOLOGICAL INFORMATION:
EC is the effect concentration in water. BCF = Bioconcentration Factor, which is used to determine if a substance will concentrate in lifeforms which consume contaminated plant or animal matter. TLm = median threshold limit; Coefficient of Oil/Water Distribution is represented by log Kow or log Koc and is used to assess a substance’s behavior in the environment.

REGULATORY INFORMATION:
U.S. and CANADA: ACGIH: American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits. This section explains the impact of various laws and regulations on the material. EPA is the U.S. Environmental Protection Agency. NIOSH is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. Occupational Safety and Health Administration (OSHA). WHMIS is the Canadian Workplace Hazardous Materials Information System. DOT and TC are the U.S. Department of Transportation and the Transport Canada, respectively. Superfund Amendments and Reauthorization Act (SARA); the Canadian Domestic/Non-Domestic Substances List (DSL/NDSL); the U.S. Toxic Substance Control Act (TSCA); Marine Pollutant status according to the DOT; the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund); and various state regulations. This section also includes information on the precautionary warnings which appear on the material’s package label. OSHA - U.S. Occupational Safety and Health Administration.