



## Aqua. Ceramithane (S) F82903

### ICP Construction

Version No: 2.2

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 01/25/2017

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S.GHS.USA.EN

## SECTION 1 IDENTIFICATION

### Product Identifier

|                               |                              |
|-------------------------------|------------------------------|
| Product name                  | Aqua. Ceramithane (S) F82903 |
| Synonyms                      | Not Available                |
| Other means of identification | Not Available                |

### Recommended use of the chemical and restrictions on use

|                          |  |
|--------------------------|--|
| Relevant identified uses | Finish for wood, primed metal and masonry floors and kitchen cabinetry |
|--------------------------|--|

### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

|                         |  |
|-------------------------|--|
| Registered company name | ICP Construction                                     |
| Address                 | 150 Dascomb Road Massachusetts Andover United States |
| Telephone               | 978-623-9980   |
| Fax                     | Not Available  |
| Website                 | Not Available  |
| Email                   | Not Available  |

### Emergency phone number

|                                   |                |
|-----------------------------------|----------------|
| Association / Organisation        | Chemtel        |
| Emergency telephone numbers       | 1-800-255-3924 |
| Other emergency telephone numbers | 1-813-248-0585 |

## SECTION 2 HAZARD(S) IDENTIFICATION

### Classification of the substance or mixture

|                |                |
|----------------|----------------|
| Classification | Not Applicable |
|----------------|----------------|

### Label elements

|                    |                |
|--------------------|----------------|
| GHS label elements | Not Applicable |
|--------------------|----------------|

|             |                       |
|-------------|-----------------------|
| SIGNAL WORD | <b>NOT APPLICABLE</b> |
|-------------|-----------------------|

### Hazard statement(s)

Not Applicable

### Hazard(s) not otherwise specified

Not Applicable

### Precautionary statement(s) Prevention

Not Applicable

### Precautionary statement(s) Response

Not Applicable

### Precautionary statement(s) Storage

Not Applicable

### Precautionary statement(s) Disposal

Not Applicable

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Continued...

**Substances**

See section below for composition of Mixtures

**Mixtures**

| CAS No     | %[weight] | Name  |
|------------|-----------|---|
| 107-21-1   | 1-5       | <u>ethylene glycol</u>                                      |
| 29911-28-2 | 5-10      | <u>dipropylene glycol mono-n-butyl ether - alpha isomer</u> |

**SECTION 4 FIRST-AID MEASURES****Description of first aid measures**

|                     |  |
|---------------------|--|
| <b>Eye Contact</b>  | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Wash out immediately with fresh running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>  |
| <b>Skin Contact</b> | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>▶ Immediately remove all contaminated clothing, including footwear.</li> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Seek medical attention in event of irritation.</li> </ul>  |
| <b>Inhalation</b>   | <ul style="list-style-type: none"> <li>▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>▶ Other measures are usually unnecessary.</li> </ul>  |
| <b>Ingestion</b>    | <ul style="list-style-type: none"> <li>▶ <b>If swallowed do NOT induce vomiting.</b></li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>▶ Seek medical advice.</li> </ul> |

**Most important symptoms and effects, both acute and delayed**

See Section 11

**Indication of any immediate medical attention and special treatment needed**

For acute or short term repeated exposures to ethylene glycol:

- ▶ Early treatment of ingestion is important. Ensure emesis is satisfactory.
- ▶ Test and correct for metabolic acidosis and hypocalcaemia.
- ▶ Apply sustained diuresis when possible with hypertonic mannitol.
- ▶ Evaluate renal status and begin haemodialysis if indicated. [I.L.O]
- ▶ Rapid absorption is an indication that emesis or lavage is effective only in the first few hours. Cathartics and charcoal are generally not effective.
- ▶ Correct acidosis, fluid/electrolyte balance and respiratory depression in the usual manner. Systemic acidosis (below 7.2) can be treated with intravenous sodium bicarbonate solution.
- ▶ Ethanol therapy prolongs the half-life of ethylene glycol and reduces the formation of toxic metabolites.
- ▶ Pyridoxine and thiamine are cofactors for ethylene glycol metabolism and should be given (50 to 100 mg respectively) intramuscularly, four times per day for 2 days.
- ▶ Magnesium is also a cofactor and should be replenished. The status of 4-methylpyrazole, in the treatment regime, is still uncertain. For clearance of the material and its metabolites, haemodialysis is much superior to peritoneal dialysis.

[Ellenhorn and Barceloux: Medical Toxicology]

It has been suggested that there is a need for establishing a new biological exposure limit before a workshift that is clearly below 100 mmol ethoxy-acetic acids per mole creatinine in morning urine of people occupationally exposed to ethylene glycol ethers. This arises from the finding that an increase in urinary stones may be associated with such exposures.

Laitinen J., et al: *Occupational & Environmental Medicine* 1996; 53, 595-600

**SECTION 5 FIRE-FIGHTING MEASURES****Extinguishing media**

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).

**Special hazards arising from the substrate or mixture**

|                             |  |
|-----------------------------|--|
| <b>Fire Incompatibility</b> | ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|--|

**Special protective equipment and precautions for fire-fighters**

|                              |  |
|------------------------------|--|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear full body protective clothing with breathing apparatus.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> </ul>   |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <li>▶ Combustible.</li> <li>▶ Slight fire hazard when exposed to heat or flame.</li> <li>▶ Heating may cause expansion or decomposition leading to violent rupture of containers.</li> </ul> <p>Combustion products include:</p> <ul style="list-style-type: none"> <li>, carbon dioxide (CO2)</li> <li>, other pyrolysis products typical of burning organic material.</li> </ul> <p>May emit poisonous fumes.<br/>May emit corrosive fumes.</p> |

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

See section 8

**Environmental precautions**

See section 12

**Methods and material for containment and cleaning up**

|                     |   |
|---------------------|---|
| <b>Minor Spills</b> | <ul style="list-style-type: none"> <li>▶ Remove all ignition sources.</li> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> </ul> |
| <b>Major Spills</b> | <p>Moderate hazard.</p> <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> </ul> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 HANDLING AND STORAGE****Precautions for safe handling**

|                          |  |
|--------------------------|--|
| <b>Safe handling</b>     | <ul style="list-style-type: none"> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> </ul> |
| <b>Other information</b> | <ul style="list-style-type: none"> <li>▶ Store in original containers.</li> <li>▶ Keep containers securely sealed.</li> <li>▶ No smoking, naked lights or ignition sources.</li> </ul>   |

**Conditions for safe storage, including any incompatibilities**

|                                |  |
|--------------------------------|--|
| <b>Suitable container</b>      | <ul style="list-style-type: none"> <li>▶ Metal can or drum</li> <li>▶ Packaging as recommended by manufacturer.</li> <li>▶ Check all containers are clearly labelled and free from leaks.</li> </ul> |
| <b>Storage incompatibility</b> | <ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> </ul>   |

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION****Control parameters****OCCUPATIONAL EXPOSURE LIMITS (OEL)****INGREDIENT DATA**


| Source                                      | Ingredient      | Material name   | TWA           | STEL          | Peak          | Notes                     |
|---|-----------------|---|---------------|---------------|---------------|---------------------------|
| US ACGIH Threshold Limit Values (TLV)       | ethylene glycol | ‡ Ethylene glycol   | Not Available | Not Available | 100 mg/m3     | TLV® Basis: URT & eye irr |
| US NIOSH Recommended Exposure Limits (RELs) | ethylene glycol | 1,2-Dihydroxyethane; 1,2-Ethanedio; Glycol; Glycol alcohol; Monoethylene glycol | Not Available | Not Available | Not Available | See Appendix D            |

**EMERGENCY LIMITS**

| Ingredient      | Material name   | TEEL-1 | TEEL-2 | TEEL-3 |
|-----------------|-----------------|--------|--------|--------|
| ethylene glycol | Ethylene glycol | 30 ppm | 40 ppm | 60 ppm |

| Ingredient   | Original IDLH | Revised IDLH  |
|--|---------------|---------------|
| ethylene glycol                                      | Not Available | Not Available |
| dipropylene glycol mono-n-butyl ether - alpha isomer | Not Available | Not Available |

**Exposure controls**

|   |   |
|---|---|
| <b>Appropriate engineering controls</b> | <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:<br/>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> |
| <b>Personal protection</b>              |    |
| <b>Eye and face protection</b>          | <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles.</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.</li> </ul>   |
| <b>Skin protection</b>                  | See Hand protection below   |

|                              |  |
|------------------------------|--|
| <b>Hands/feet protection</b> | <ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> |
| <b>Body protection</b>       | See Other protection below   |
| <b>Other protection</b>      | <ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C. apron.</li> </ul>   |
| <b>Thermal hazards</b>       | Not Available  |

### Respiratory protection

Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content. The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

| Required minimum protection factor | Maximum gas/vapour concentration present in air p.p.m. (by volume) | Half-face Respirator | Full-Face Respirator |
|------------------------------------|--|----------------------|----------------------|
| up to 10                           | 1000   | A-AUS / Class 1      | -                    |
| up to 50                           | 1000   | -                    | A-AUS / Class 1      |
| up to 50                           | 5000   | Airline *            | -                    |
| up to 100                          | 5000   | -                    | A-2                  |
| up to 100                          | 10000  | -                    | A-3                  |
| 100+                               |  | -                    | Airline**            |

\* - Continuous Flow

\*\* - Continuous-flow or positive pressure demand.

A(All classes) = Organic vapours, B AUS or B1 = Acid gases, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 deg C)

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

| Appearance  | Text          |  |               |
|---|---------------|--|---------------|
| <b>Physical state</b>                               | Liquid        | <b>Relative density (Water = 1)</b>            | Not Available |
| <b>Odour</b>  | Not Available | <b>Partition coefficient n-octanol / water</b> | Not Available |
| <b>Odour threshold</b>                              | Not Available | <b>Auto-ignition temperature (°C)</b>          | Not Available |
| <b>pH (as supplied)</b>                             | Not Available | <b>Decomposition temperature</b>               | Not Available |
| <b>Melting point / freezing point (°C)</b>          | Not Available | <b>Viscosity (cSt)</b>                         | Not Available |
| <b>Initial boiling point and boiling range (°C)</b> | Not Available | <b>Molecular weight (g/mol)</b>                | Not Available |
| <b>Flash point (°C)</b>                             | Not Available | <b>Taste</b>                                   | Not Available |
| <b>Evaporation rate</b>                             | Not Available | <b>Explosive properties</b>                    | Not Available |
| <b>Flammability</b>                                 | Not Available | <b>Oxidising properties</b>                    | Not Available |
| <b>Upper Explosive Limit (%)</b>                    | Not Available | <b>Surface Tension (dyn/cm or mN/m)</b>        | Not Available |
| <b>Lower Explosive Limit (%)</b>                    | Not Available | <b>Volatile Component (%vol)</b>               | Not Available |
| <b>Vapour pressure (kPa)</b>                        | Not Available | <b>Gas group</b>                               | Not Available |
| <b>Solubility in water (g/L)</b>                    | Immiscible    | <b>pH as a solution (1%)</b>                   | Not Available |
| <b>Vapour density (Air = 1)</b>                     | Not Available | <b>VOC g/L</b>                                 | Not Available |

## SECTION 10 STABILITY AND REACTIVITY

|   |  |
|---|--|
| <b>Reactivity</b>                         | See section 7  |
| <b>Chemical stability</b>                 | <ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul> |
| <b>Possibility of hazardous reactions</b> | See section 7  |
| <b>Conditions to avoid</b>                | See section 7  |
| <b>Incompatible materials</b>             | See section 7  |
| <b>Hazardous decomposition products</b>   | See section 5  |

## SECTION 11 TOXICOLOGICAL INFORMATION

## Information on toxicological effects

|                     |   |
|---------------------|---|
| <b>Inhaled</b>      | The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.   |
| <b>Ingestion</b>    | Accidental ingestion of the material may be damaging to the health of the individual.   |
| <b>Skin Contact</b> | Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.<br>There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.<br>Open cuts, abraded or irritated skin should not be exposed to this material<br>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. |
| <b>Eye</b>          | This material can cause eye irritation and damage in some persons.  |
| <b>Chronic</b>      | Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.  |

|   |  |  |
|---|--|--|
| <b>Aqua. Ceramithane (S)<br/>F82903</b>                             | <b>TOXICITY</b>                                      | <b>IRRITATION</b>                      |
|   | Not Available  | Not Available                          |
| <b>ethylene glycol</b>  | <b>TOXICITY</b>                                      | <b>IRRITATION</b>                      |
|   | Dermal (rabbit) LD50: 9530 mg/kg <sup>[2]</sup>      | Eye (rabbit): 100 mg/1h - mild         |
|   | Inhalation (rat) LC50: 50.1 mg/L/8 hr <sup>[2]</sup> | Eye (rabbit): 12 mg/m <sup>3</sup> /3D |
|   | Oral (rat) LD50: 4700 mg/kg <sup>[2]</sup>           | Eye (rabbit): 1440mg/6h-moderate       |
|   |  | Eye (rabbit): 500 mg/24h - mild        |
|   |  | Skin (rabbit): 555 mg(open)-mild       |
| <b>dipropylene glycol<br/>mono-n-butyl ether - alpha<br/>isomer</b> | <b>TOXICITY</b>                                      | <b>IRRITATION</b>                      |
|   | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>        | Not Available                          |
|   | Oral (rat) LD50: 1501.74 mg/kg <sup>[2]</sup>        |  |

**Legend:** 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.\* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

|   |  |
|---|--|
| <b>ETHYLENE GLYCOL</b>  | For ethylene glycol:<br>Ethylene glycol is quickly and extensively absorbed through the gastrointestinal tract. Limited information suggests that it is also absorbed through the respiratory tract; dermal absorption is apparently slow. Following absorption, ethylene glycol is distributed throughout the body according to total body water. [Estimated Lethal Dose (human) 100 ml; RTECS quoted by Orica] Substance is reproductive effector in rats (birth defects). Mutagenic to rat cells.   |
| <b>DIPROPYLENE GLYCOL<br/>MONO-N-BUTYL ETHER -<br/>ALPHA ISOMER</b> | for propylene glycol ethers (PGEs):<br>Typical propylene glycol ethers include propylene glycol n-butyl ether (PnB); dipropylene glycol n-butyl ether (DPnB); dipropylene glycol methyl ether acetate (DPMA); tripropylene glycol methyl ether (TPM).<br>Testing of a wide variety of propylene glycol ethers has shown that propylene glycol-based ethers are less toxic than some ethers of the ethylene series. The common toxicities associated with the lower molecular weight homologues of the ethylene series, such as adverse effects on reproductive organs, the developing embryo and fetus, blood (haemolytic effects), or thymus, are not seen with the commercial-grade propylene glycol ethers. |

|  |   |                                 |   |
|--|---|---------------------------------|---|
| <b>Acute Toxicity</b>                        | ☉ | <b>Carcinogenicity</b>          | ☉ |
| <b>Skin Irritation/Corrosion</b>             | ☉ | <b>Reproductivity</b>           | ☉ |
| <b>Serious Eye<br/>Damage/Irritation</b>     | ☉ | <b>STOT - Single Exposure</b>   | ☉ |
| <b>Respiratory or Skin<br/>sensitisation</b> | ☉ | <b>STOT - Repeated Exposure</b> | ☉ |
| <b>Mutagenicity</b>                          | ☉ | <b>Aspiration Hazard</b>        | ☉ |

**Legend:** ✗ - Data available but does not fill the criteria for classification  
✔ - Data available to make classification  
☉ - Data Not Available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

## Toxicity

| Ingredient      | Endpoint | Test Duration (hr) | Species                       | Value          | Source |
|-----------------|----------|--------------------|-------------------------------|----------------|--------|
| ethylene glycol | LC50     | 96                 | Fish                          | 2284.940mg/L   | 3      |
| ethylene glycol | EC50     | 48                 | Crustacea                     | 5046.29mg/L    | 5      |
| ethylene glycol | EC50     | 96                 | Algae or other aquatic plants | 6500-13000mg/L | 1      |
| ethylene glycol | EC50     | Not Applicable     | Crustacea                     | =10mg/L        | 1      |
| ethylene glycol | NOEC     | 552                | Crustacea                     | >=1000mg/L     | 2      |

Continued...

|  |  |     |                               |             |   |
|--|--|-----|-------------------------------|-------------|---|
| dipropylene glycol mono-n-butyl ether - alpha isomer | LC50   | 96  | Fish                          | 139.478mg/L | 3 |
| dipropylene glycol mono-n-butyl ether - alpha isomer | EC50   | 96  | Algae or other aquatic plants | 556.359mg/L | 3 |
| dipropylene glycol mono-n-butyl ether - alpha isomer | EC50   | 384 | Crustacea                     | 32.795mg/L  | 3 |
| dipropylene glycol mono-n-butyl ether - alpha isomer | NOEC   | 96  | Fish                          | =180mg/L    | 1 |
| <b>Legend:</b>                                       | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data |     |                               |             |   |

For Propylene Glycol Ethers: log Kow's range from 0.309 for TPM to 1.523 for DPnB. Calculated BCFs range from 1.47 for DPnB to 3.16 for DPMA and TPM, indicating low bioaccumulation. Henry's Law Constants are low for all category members, ranging from 5.7 x 10<sup>-9</sup> atm-m<sup>3</sup>/mole for TPM to 2.7 x10<sup>-9</sup> atm-m<sup>3</sup>/mole for PnB.

**DO NOT discharge into sewer or waterways.**

#### Persistence and degradability

| Ingredient   | Persistence: Water/Soil   | Persistence: Air            |
|--|---------------------------|-----------------------------|
| ethylene glycol                                      | LOW (Half-life = 24 days) | LOW (Half-life = 3.46 days) |
| dipropylene glycol mono-n-butyl ether - alpha isomer | HIGH                      | HIGH                        |

#### Bioaccumulative potential

| Ingredient   | Bioaccumulation       |
|--|-----------------------|
| ethylene glycol                                      | LOW (BCF = 200)       |
| dipropylene glycol mono-n-butyl ether - alpha isomer | LOW (LogKOW = 1.1274) |

#### Mobility in soil

| Ingredient   | Mobility       |
|--|----------------|
| ethylene glycol                                      | HIGH (KOC = 1) |
| dipropylene glycol mono-n-butyl ether - alpha isomer | LOW (KOC = 10) |

### SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

|                                     |   |
|-------------------------------------|---|
| <b>Product / Packaging disposal</b> | <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Authority for disposal.</li> <li>▶ Bury or incinerate residue at an approved site.</li> </ul> |
|-------------------------------------|---|

### SECTION 14 TRANSPORT INFORMATION

#### Labels Required

|                  |    |
|------------------|----|
| Marine Pollutant | NO |
|------------------|----|

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

### SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

ETHYLENE GLYCOL(107-21-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

|   |   |
|---|---|
| US - Alaska Limits for Air Contaminants   | US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants |
| US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs)     | US - Washington Permissible exposure limits of air contaminants                               |
| US - California Permissible Exposure Limits for Chemical Contaminants                       | US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values      |
| US - California Proposition 65 - Reproductive Toxicity                                      | US ACGIH Threshold Limit Values (TLV)   |
| US - Hawaii Air Contaminant Limits  | US ACGIH Threshold Limit Values (TLV) - Carcinogens   |
| US - Massachusetts - Right To Know Listed Chemicals   | US ACGIH Threshold Limit Values (TLV) - Notice of Intended Changes                            |
| US - Michigan Exposure Limits for Air Contaminants  | US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)                                  |
| US - Minnesota Permissible Exposure Limits (PELs)   | US Clean Air Act - Hazardous Air Pollutants   |
| US - Oregon Permissible Exposure Limits (Z-1)   | US EPCRA Section 313 Chemical List  |
| US - Pennsylvania - Hazardous Substance List  | US NIOSH Recommended Exposure Limits (RELs)   |
| US - Rhode Island Hazardous Substance List  | US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants              |
| US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants                   | US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory                         |
| US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants |   |

#### DIPROPYLENE GLYCOL MONO-N-BUTYL ETHER - ALPHA ISOMER(29911-28-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

|   |   |
|---|---|
| US - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELs)    | US Clean Air Act - Hazardous Air Pollutants                           |
| US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs) | US EPCRA Section 313 Chemical List                                    |
| US - Pennsylvania - Hazardous Substance List  | US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory |

### Federal Regulations

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### SECTION 311/312 HAZARD CATEGORIES

|                                 |    |
|---------------------------------|----|
| Immediate (acute) health hazard | No |
| Delayed (chronic) health hazard | No |
| Fire hazard                     | No |
| Pressure hazard                 | No |
| Reactivity hazard               | No |

##### US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

| Name            | Reportable Quantity in Pounds (lb) | Reportable Quantity in kg |
|-----------------|------------------------------------|---------------------------|
| Ethylene glycol | 5000                               | 2270                      |

### State Regulations

#### US. CALIFORNIA PROPOSITION 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm

#### US - CALIFORNIA PREPOSITION 65 - CARCINOGENS & REPRODUCTIVE TOXICITY (CRT): LISTED SUBSTANCE

Ethylene glycol (ingested) Listed

| National Inventory            | Status   |
|-------------------------------|--|
| Australia - AICS              | Y  |
| Canada - DSL                  | Y  |
| Canada - NDSSL                | N (dipropylene glycol mono-n-butyl ether - alpha isomer; ethylene glycol)  |
| China - IECSC                 | Y  |
| Europe - EINEC / ELINCS / NLP | Y  |
| Japan - ENCS                  | N (dipropylene glycol mono-n-butyl ether - alpha isomer)   |
| Korea - KECI                  | Y  |
| New Zealand - NZIoC           | Y  |
| Philippines - PICCS           | Y  |
| USA - TSCA                    | Y  |
| <b>Legend:</b>                | Y = All ingredients are on the inventory<br>N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

### SECTION 16 OTHER INFORMATION

#### CONTACT POINT

\*\*PLEASE NOTE THAT TITANIUM DIOXIDE IS NOT PRESENT IN CLEAR OR NEUTRAL BASES\*\*

#### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

#### Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average  
PC—STEL: Permissible Concentration-Short Term Exposure Limit

Continued...

IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit,  
IDLH: Immediately Dangerous to Life or Health Concentrations  
OSF: Odour Safety Factor  
NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index

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