



## 20546, 20548, 20499 MARINE 4T MOTOR OIL 25W-40 1L, 4L, 20L

Liqui Moly GmbH

Chemwatch: 16-78767

Version No: 3.1.1.1

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

Chemwatch Hazard Alert Code: 0

Issue Date: 01/11/2019

Print Date: 17/04/2020

S.GHS.USA.EN

### SECTION 1 IDENTIFICATION

#### Product Identifier

|                               |                                                            |
|-------------------------------|------------------------------------------------------------|
| Product name                  | 20546, 20548, 20499 MARINE 4T MOTOR OIL 25W-40 1L, 4L, 20L |
| Synonyms                      | Not Available                                              |
| Other means of identification | Not Available                                              |

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

|                          |            |
|--------------------------|------------|
| Relevant identified uses | Motor oil. |
|--------------------------|------------|

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

|                         |                                                                     |
|-------------------------|---------------------------------------------------------------------|
| Registered company name | Liqui Moly GmbH                                                     |
| Address                 | Jerg-Wieland-Strasse 4 Ulm D-89081 Germany                          |
| Telephone               | +49 731 1420 0                                                      |
| Fax                     | +49 731 1420 82                                                     |
| Website                 | <a href="http://www.liqui-moly.com/">http://www.liqui-moly.com/</a> |
| Email                   | Not Available                                                       |

#### Emergency phone number

|                                   |                                      |
|-----------------------------------|--------------------------------------|
| Association / Organisation        | INFOTRAC                             |
| Emergency telephone numbers       | +1800 535 5053 (US, Canada & Mexico) |
| Other emergency telephone numbers | +1 352 323 3500 (International)      |

### SECTION 2 HAZARD(S) IDENTIFICATION

#### Classification of the substance or mixture

##### CHEMWATCH HAZARD RATINGS

|              | Min | Max |
|--------------|-----|-----|
| Flammability | 0   |     |
| Toxicity     | 0   |     |
| Body Contact | 0   |     |
| Reactivity   | 0   |     |
| Chronic      | 0   |     |

0 = Minimum  
1 = Low  
2 = Moderate  
3 = High  
4 = Extreme

##### NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

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

#### Label elements

|                     |                |
|---------------------|----------------|
| Hazard pictogram(s) | Not Applicable |
|---------------------|----------------|

|             |                |
|-------------|----------------|
| SIGNAL WORD | NOT APPLICABLE |
|-------------|----------------|

#### Hazard statement(s)

Not Applicable

#### Hazard(s) not otherwise classified

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****Substances**

See section below for composition of Mixtures

**Mixtures**

| CAS No        | %[weight] | Name               |
|---------------|-----------|--------------------|
| Not Available | 1-5       | <u>mineral oil</u> |

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

|                     |                                                                                                                                                                                                                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye Contact</b>  | If this product comes in contact with eyes: <ul style="list-style-type: none"><li>▶ Wash out immediately with water.</li><li>▶ If irritation continues, 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> | If skin or hair contact occurs: <ul style="list-style-type: none"><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>▶ Immediately give a glass of water.</li><li>▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li></ul>                                                                                                |

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

See Section 11

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

Treat symptomatically.

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

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

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

|                             |             |
|-----------------------------|-------------|
| <b>Fire Incompatibility</b> | None known. |
|-----------------------------|-------------|

**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><li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</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><li>▶ On combustion, may emit irritating/ toxic fumes.</li></ul>                                                                                   |

**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><li>▶ Control personal contact with the substance, by using protective equipment.</li></ul> |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Continued...

**Major Spills**

- Moderate hazard.
- ▶ Clear area of personnel and move upwind.
  - ▶ Alert Fire Brigade and tell them location and nature of hazard.
  - ▶ Wear breathing apparatus plus protective gloves.

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>▶ Prevent concentration in hollows and sumps.</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> <li>▶ Store in a cool, dry, well-ventilated area.</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> | Avoid contamination of water, foodstuffs, feed or seed.<br>None known                                                                                                                                |

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

| Source                                                | Ingredient  | Material name                                                                                                  | TWA     | STEL          | Peak          | Notes         |
|-------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------|---------|---------------|---------------|---------------|
| US NIOSH Recommended Exposure Limits (RELs)           | mineral oil | Heavy mineral oil mist, Paraffin oil mist, White mineral oil mist                                              | 5 mg/m3 | 10 mg/m3      | Not Available | Not Available |
| US OSHA Permissible Exposure Levels (PELs) - Table Z1 | mineral oil | Oil mist, mineral                                                                                              | 5 mg/m3 | Not Available | Not Available | Not Available |
| US ACGIH Threshold Limit Values (TLV)                 | mineral oil | Mineral oil, excluding metal working fluids - Pure, highly and severely refined (Inhalable particulate matter) | 5 mg/m3 | Not Available | Not Available | URT irr       |

**EMERGENCY LIMITS**

| Ingredient  | Material name                                                                                                                                                                        | TEEL-1        | TEEL-2      | TEEL-3      |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------|-------------|
| mineral oil | Mineral oil, heavy or light; (paraffin oil; Deobase, deodorized; heavy paraffinic; heavy naphthenic); distillates; includes 64741-53-3, 64741-88-4, 8042-47-5, 8012-95-1; 64742-54-7 | 140 mg/m3     | 1,500 mg/m3 | 8,900 mg/m3 |
| Ingredient  | Original IDLH                                                                                                                                                                        | Revised IDLH  |             |             |
| mineral oil | 2,500 mg/m3                                                                                                                                                                          | 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:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.</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. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.</li> </ul>                                                                                                                                                                     |
| <b>Skin protection</b>                  | See Hand protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Hands/feet protection</b>            | <p>Wear general protective gloves, eg. light weight rubber gloves.</p> <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> <p>Personal hygiene is a key element of effective hand care.</p>  |
| <b>Body protection</b>                  | See Other protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

## Other protection

No special equipment needed when handling small quantities.

## OTHERWISE:

- ▶ Overalls.
- ▶ Barrier cream.
- ▶ Eyewash unit.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

|                                              |                                                                         |                                         |                    |
|----------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------|--------------------|
| Appearance                                   | Brown colour liquid with characteristic odour; not miscible with water. |                                         |                    |
| Physical state                               | Liquid                                                                  | Relative density (Water = 1)            | 0.895              |
| Odour                                        | Not Available                                                           | Partition coefficient n-octanol / water | Not Available      |
| Odour threshold                              | Not Available                                                           | Auto-ignition temperature (°C)          | Not Available      |
| pH (as supplied)                             | Not Applicable                                                          | Decomposition temperature               | Not Available      |
| Melting point / freezing point (°C)          | Not Available                                                           | Viscosity (cSt)                         | 140.4, 14.7 @ 100C |
| Initial boiling point and boiling range (°C) | Not Available                                                           | Molecular weight (g/mol)                | Not Applicable     |
| Flash point (°C)                             | 240                                                                     | Taste                                   | Not Available      |
| Evaporation rate                             | Not Available                                                           | Explosive properties                    | Not Available      |
| Flammability                                 | Not Applicable                                                          | Oxidising properties                    | Not Available      |
| Upper Explosive Limit (%)                    | Not Available                                                           | Surface Tension (dyn/cm or mN/m)        | Not Available      |
| Lower Explosive Limit (%)                    | Not Available                                                           | Volatile Component (%vol)               | 0                  |
| Vapour pressure (kPa)                        | Not Available                                                           | Gas group                               | Not Available      |
| Solubility in water                          | Immiscible                                                              | pH as a solution (1%)                   | Not Available      |
| Vapour density (Air = 1)                     | Not Available                                                           | VOC g/L                                 | Not Available      |

## SECTION 10 STABILITY AND REACTIVITY

|                                    |                                                                           |
|------------------------------------|---------------------------------------------------------------------------|
| Reactivity                         | See section 7                                                             |
| Chemical stability                 | Product is considered stable and hazardous polymerisation will not occur. |
| Possibility of hazardous reactions | See section 7                                                             |
| Conditions to avoid                | See section 7                                                             |
| Incompatible materials             | See section 7                                                             |
| Hazardous decomposition products   | See section 5                                                             |

## SECTION 11 TOXICOLOGICAL INFORMATION

## Information on toxicological effects

|              |                                                                                                                                                                                                                                                                                                                   |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhaled      | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. |
| Ingestion    | The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.                                                                                                                    |
| Skin Contact | The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives.                                                                 |
| Eye          | Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).                                                                                          |
| Chronic      | 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.                                                                            |

|                                                            |                                                                                                                                                                                                                              |               |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 20546, 20548, 20499 MARINE 4T MOTOR OIL 25W-40 1L, 4L, 20L | TOXICITY                                                                                                                                                                                                                     | IRRITATION    |
|                                                            | Not Available                                                                                                                                                                                                                | Not Available |
| mineral oil                                                | TOXICITY                                                                                                                                                                                                                     | IRRITATION    |
|                                                            | Not Available                                                                                                                                                                                                                | Not Available |
| 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 |               |

## MINERAL OIL

Toxicity and Irritation data for petroleum-based mineral oils are related to chemical components and vary as does the composition and source of the original crude.

A small but definite risk of occupational skin cancer occurs in workers exposed to persistent skin contamination by oils over a period of years.

## 20546, 20548, 20499 MARINE 4T MOTOR OIL 25W-40 1L, 4L, 20L

|                                   |                                                                                                                                                                                                                                                    |                          |   |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|
|                                   | This risk has been attributed to the presence of certain polycyclic aromatic hydrocarbons (PAH) (typified by benz[a]pyrene). Petroleum oils which are solvent refined/extracted or severely hydrotreated, contain very low concentrations of both. |                          |   |
| Acute Toxicity                    | ✗                                                                                                                                                                                                                                                  | Carcinogenicity          | ✗ |
| Skin Irritation/Corrosion         | ✗                                                                                                                                                                                                                                                  | Reproductivity           | ✗ |
| Serious Eye Damage/Irritation     | ✗                                                                                                                                                                                                                                                  | STOT - Single Exposure   | ✗ |
| Respiratory or Skin sensitisation | ✗                                                                                                                                                                                                                                                  | STOT - Repeated Exposure | ✗ |
| Mutagenicity                      | ✗                                                                                                                                                                                                                                                  | Aspiration Hazard        | ✗ |

Legend: ✗ – Data either not available or does not fill the criteria for classification  
 ✔ – Data available to make classification

## SECTION 12 ECOLOGICAL INFORMATION

## Toxicity

| 20546, 20548, 20499 MARINE 4T MOTOR OIL 25W-40 1L, 4L, 20L | ENDPOINT                                                                                                                                                                                                                                                                                                                                                                                  | TEST DURATION (HR) | SPECIES       | VALUE         | SOURCE        |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|---------------|---------------|
|                                                            | Not Available                                                                                                                                                                                                                                                                                                                                                                             | Not Available      | Not Available | Not Available | Not Available |
| mineral oil                                                | ENDPOINT                                                                                                                                                                                                                                                                                                                                                                                  | TEST DURATION (HR) | SPECIES       | VALUE         | SOURCE        |
|                                                            | Not Available                                                                                                                                                                                                                                                                                                                                                                             | Not Available      | Not Available | Not Available | Not Available |
| <b>Legend:</b>                                             | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - 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 |                    |               |               |               |

## Persistence and degradability

| Ingredient | Persistence: Water/Soil               | Persistence: Air                      |
|------------|---------------------------------------|---------------------------------------|
|            | No Data available for all ingredients | No Data available for all ingredients |

## Bioaccumulative potential

| Ingredient | Bioaccumulation                       |
|------------|---------------------------------------|
|            | No Data available for all ingredients |

## Mobility in soil

| Ingredient | Mobility                              |
|------------|---------------------------------------|
|            | No Data available for all ingredients |

## SECTION 13 DISPOSAL CONSIDERATIONS

## Waste treatment methods

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product / Packaging disposal | <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> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> <li>▶ Reduction</li> <li>▶ Reuse</li> <li>▶ Recycling</li> <li>▶ Disposal (if all else fails)</li> </ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.</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>▶ Where in doubt contact the responsible authority.</li> <li>▶ Recycle wherever possible or consult manufacturer for recycling options.</li> <li>▶ Consult State Land Waste Management Authority for disposal.</li> <li>▶ Bury residue in an authorised landfill.</li> <li>▶ Recycle containers if possible, or dispose of in an authorised landfill.</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

Continued...

**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****MINERAL OIL IS FOUND ON THE FOLLOWING REGULATORY LISTS**

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

US ACGIH Threshold Limit Values (TLV)

US AIHA Workplace Environmental Exposure Levels (WEELs)

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Levels (PELs) - Table Z1

**Federal Regulations****Superfund Amendments and Reauthorization Act of 1986 (SARA)****SECTION 311/312 HAZARD CATEGORIES**

|                                                              |    |
|--------------------------------------------------------------|----|
| Flammable (Gases, Aerosols, Liquids, or Solids)              | No |
| Gas under pressure                                           | No |
| Explosive                                                    | No |
| Self-heating                                                 | No |
| Pyrophoric (Liquid or Solid)                                 | No |
| Pyrophoric Gas                                               | No |
| Corrosive to metal                                           | No |
| Oxidizer (Liquid, Solid or Gas)                              | No |
| Organic Peroxide                                             | No |
| Self-reactive                                                | No |
| In contact with water emits flammable gas                    | No |
| Combustible Dust                                             | No |
| Carcinogenicity                                              | No |
| Acute toxicity (any route of exposure)                       | No |
| Reproductive toxicity                                        | No |
| Skin Corrosion or Irritation                                 | No |
| Respiratory or Skin Sensitization                            | No |
| Serious eye damage or eye irritation                         | No |
| Specific target organ toxicity (single or repeated exposure) | No |
| Aspiration Hazard                                            | No |
| Germ cell mutagenicity                                       | No |
| Simple Asphyxiant                                            | No |
| Hazards Not Otherwise Classified                             | No |

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

None Reported

**State Regulations****US. CALIFORNIA PROPOSITION 65**

None Reported

**National Inventory Status**

| National Inventory            | Status |
|-------------------------------|--------|
| Australia - AICS              | Yes    |
| Canada - DSL                  | Yes    |
| Canada - NDSL                 | Yes    |
| China - IECSC                 | Yes    |
| Europe - EINEC / ELINCS / NLP | Yes    |
| Japan - ENCS                  | Yes    |
| Korea - KECI                  | Yes    |
| New Zealand - NZIoC           | Yes    |
| Philippines - PICCS           | Yes    |
| USA - TSCA                    | Yes    |
| Taiwan - TCSI                 | Yes    |
| Mexico - INSQ                 | Yes    |
| Vietnam - NCI                 | Yes    |

Continued...

|                |                                                                                                                                                                                                          |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Russia - ARIPS | Yes                                                                                                                                                                                                      |
| <b>Legend:</b> | Yes = All CAS declared ingredients are on the inventory<br>No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

## SECTION 16 OTHER INFORMATION

|                      |            |
|----------------------|------------|
| <b>Revision Date</b> | 01/11/2019 |
| <b>Initial Date</b>  | 24/01/2019 |

### SDS Version Summary

| Version | Issue Date | Sections Updated                                                               |
|---------|------------|--------------------------------------------------------------------------------|
| 3.1.1.1 | 01/11/2019 | One-off system update. NOTE: This may or may not change the GHS classification |

### 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. Scale of use, frequency of use and current or available engineering controls must be considered.

### Definitions and abbreviations

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