# 2258, 2259, 20368, 20369 SPECIAL TEC AA 5W-20 1L, 5L, 60L, 205L

**Liqui Moly GmbH**

Chemwatch Hazard Alert Code: **1**

Chemwatch: **13-93236**
Version No: **2.1.1.1**
Safety Data Sheet according to WHMIS 2015 requirements

Issue Date: **05/10/2018**
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S.GHS.CAN.EN

## SECTION 1 IDENTIFICATION

### Product Identifier

| | |
|---|---|
| **Product name** | 2258, 2259, 20368, 20369 SPECIAL TEC AA 5W-20 1L, 5L, 60L, 205L |
| **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** | Not Available |
| **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

**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)

**CANADIAN WHMIS SYMBOLS**

| | |
|---|---|
| **Classification** | Specific target organ toxicity - single exposure Category 3 (narcotic effects) |

### Label elements

| | |
|---|---|
| **Hazard pictogram(s)** |  |
| **SIGNAL WORD** | **WARNING** |

### Hazard statement(s)

| | |
|---|---|
| **H336** | May cause drowsiness or dizziness. |

### Hazard(s) not otherwise specified

Not Applicable

### Precautionary statement(s) Prevention

Continued...

| | |
|---|---|
| **P271** | Use only outdoors or in a well-ventilated area. |
| **P261** | Avoid breathing mist/vapours/spray. |

### Precautionary statement(s) Response

| | |
|---|---|
| **P312** | Call a POISON CENTER/doctor/physician/first aider/if you feel unwell. |
| **P304+P340** | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |

### Precautionary statement(s) Storage

| | |
|---|---|
| **P405** | Store locked up. |
| **P403+P233** | Store in a well-ventilated place. Keep container tightly closed. |

### Precautionary statement(s) Disposal

| | |
|---|---|
| **P501** | Dispose of contents/container in accordance with local regulations. |

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

### Substances

See section below for composition of Mixtures

### Mixtures

| CAS No | %[weight] | Name |
|---|---|---|
| 64742-54-7. | 30-50 | paraffinic distillate, heavy, hydrotreated (severe) |
| Not Available | 1-<10 | mineral oil |
| 36878-20-3 | 1-<5 | nonylated diphenylamines |

## SECTION 4 FIRST-AID MEASURES

### Description of first aid measures

| | |
|---|---|
| **Eye Contact** | If this product comes in contact with eyes:<br>▸ Wash out immediately with water.<br>▸ If irritation continues, seek medical attention.<br>▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| **Skin Contact** | If skin or hair contact occurs:<br>▸ Flush skin and hair with running water (and soap if available).<br>▸ Seek medical attention in event of irritation. |
| **Inhalation** | ▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area.<br>▸ Other measures are usually unnecessary. |
| **Ingestion** | ▸ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.<br>▸ If swallowed do **NOT** induce vomiting.<br>▸ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.<br>▸ Observe the patient carefully.<br>▸ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.<br>▸ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.<br>▸ Seek medical advice.<br>▸ Avoid giving milk or oils.<br>▸ Avoid giving alcohol. |

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

For petroleum distillates

- In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption - decontamination (induced emesis or lavage) is controversial and should be considered on the merits of each individual case; of course the usual precautions of an endotracheal tube should be considered prior to lavage, to prevent aspiration.
- Individuals intoxicated by petroleum distillates should be hospitalized immediately, with acute and continuing attention to neurologic and cardiopulmonary function.
- Positive pressure ventilation may be necessary.
- Acute central nervous system signs and symptoms may result from large ingestions of aspiration-induced hypoxia.
- After the initial episode,individuals should be followed for changes in blood variables and the delayed appearance of pulmonary oedema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated.
- Gastrointestinal symptoms are usually minor and pathological changes of the liver and kidneys are reported to be uncommon in acute intoxications.
- Chlorinated and non-chlorinated hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur.Careful consideration of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.

BP America Product Safety & Toxicology Department

- Heavy and persistent skin contamination over many years may lead to dysplastic changes. Pre-existing skin disorders may be aggravated by exposure to this product.
- In general, emesis induction is unnecessary with high viscosity, low volatility products, i.e. most oils and greases.
- High pressure accidental injection through the skin should be assessed for possible incision, irrigation and/or debridement.

**NOTE:** Injuries may not seem serious at first, but within a few hours tissue may become swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Product may be forced through considerable distances along tissue planes.

## SECTION 5 FIRE-FIGHTING MEASURES

### Extinguishing media

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

**Continued...**

- Carbon dioxide.

### Special hazards arising from the substrate or mixture

| | |
|---|---|
| **Fire Incompatibility** | ▸ 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

| | |
|---|---|
| **Fire Fighting** | ▸ Alert Fire Brigade and tell them location and nature of hazard.<br>▸ Wear full body protective clothing with breathing apparatus.<br>▸ Prevent, by any means available, spillage from entering drains or water course.<br>▸ Use water delivered as a fine spray to control fire and cool adjacent area. |
| **Fire/Explosion Hazard** | ▸ Combustible.<br>▸ Slight fire hazard when exposed to heat or flame.<br>▸ Heating may cause expansion or decomposition leading to violent rupture of containers.<br>▸ On combustion, may emit toxic fumes of carbon monoxide (CO).<br>Combustion products include:<br>carbon dioxide ($CO_2$)<br>sulfur oxides (SOx)<br>other pyrolysis products typical of burning organic material.<br>May emit poisonous fumes.<br>**CARE**: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns. Foaming may cause overflow of containers and may result in possible fire. |

## 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

| | |
|---|---|
| **Minor Spills** | Slippery when spilt.<br>▸ Remove all ignition sources.<br>▸ Clean up all spills immediately.<br>▸ Avoid breathing vapours and contact with skin and eyes.<br>▸ Control personal contact with the substance, by using protective equipment. |
| **Major Spills** | Slippery when spilt.<br>Moderate hazard.<br>▸ Clear area of personnel and move upwind.<br>▸ Alert Fire Brigade and tell them location and nature of hazard.<br>▸ 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

| | |
|---|---|
| **Safe handling** | The conductivity of this material may make it a static accumulator., A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10 000 pS/m., Whether a liquid is nonconductive or semi-conductive, the precautions are the same., A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid.<br>▸ Containers, even those that have been emptied, may contain explosive vapours.<br>▸ Do NOT cut, drill, grind, weld or perform similar operations on or near containers.<br>▸ Electrostatic discharge may be generated during pumping - this may result in fire.<br>▸ Ensure electrical continuity by bonding and grounding (earthing) all equipment.<br>▸ Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec).<br>▸ Avoid splash filling.<br>▸ Avoid all personal contact, including inhalation.<br>▸ Wear protective clothing when risk of exposure occurs.<br>▸ Use in a well-ventilated area.<br>▸ Prevent concentration in hollows and sumps. |
| **Other information** | ▸ Store in original containers.<br>▸ Keep containers securely sealed.<br>▸ No smoking, naked lights or ignition sources.<br>▸ Store in a cool, dry, well-ventilated area. |

### Conditions for safe storage, including any incompatibilities

| | |
|---|---|
| **Suitable container** | ▸ Metal can or drum<br>▸ Packaging as recommended by manufacturer.<br>▸ Check all containers are clearly labelled and free from leaks. |
| **Storage incompatibility** | **CARE**: Water in contact with heated material may cause foaming or a steam explosion with possible severe burns from wide scattering of hot material. Resultant overflow of containers may result in fire.<br>▸ Avoid reaction with oxidising agents |

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

**Continued...**

## Control parameters

### OCCUPATIONAL EXPOSURE LIMITS (OEL)

### INGREDIENT DATA

| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|---|---|---|---|---|---|---|
| Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances | paraffinic distillate, heavy, hydrotreated (severe) | Oil mist, mineral | 5 mg/m3 | 10 mg/m3 | Not Available | Not Available |
| Canada - Nova Scotia Occupational Exposure Limits | paraffinic distillate, heavy, hydrotreated (severe) | Oil mist - mineral | 5 mg/m3 | 10 mg/m3 | Not Available | TLV Basis: lung. As sampled by method that does not collect vapor. |
| Canada - Alberta Occupational Exposure Limits | paraffinic distillate, heavy, hydrotreated (severe) | Oil mist, mineral | 5 mg/m3 | 10 mg/m3 | Not Available | Not Available |
| Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits | paraffinic distillate, heavy, hydrotreated (severe) | Oil mist, mineral | 5 mg/m3 | 10 mg/m3 | Not Available | Not Available |
| Canada - Manitoba Occupational Exposure Limits | paraffinic distillate, heavy, hydrotreated (severe) | Not Available | 5 mg/m3 | Not Available | Not Available | Not Available |
| Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English) | paraffinic distillate, heavy, hydrotreated (severe) | Mineral oil (mist) | 5 mg/m3 | 10 mg/m3 | Not Available | Not Available |
| Canada - Northwest Territories Occupational Exposure Limits (English) | paraffinic distillate, heavy, hydrotreated (severe) | Oil mist, mineral | 5 mg/m3 | 10 mg/m3 | Not Available | Not Available |
| Canada - British Columbia Occupational Exposure Limits | paraffinic distillate, heavy, hydrotreated (severe) | Oil mist - mineral, severely refined | 1 mg/m3 | Not Available | Not Available | Not Available |
| Canada - Prince Edward Island Occupational Exposure Limits | paraffinic distillate, heavy, hydrotreated (severe) | Mineral oil, excluding metal working fluids - Pure, highly and severely refined | 5 mg/m3 | Not Available | Not Available | TLV® Basis: URT irr |
| Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances | mineral oil | Oil mist, mineral | 5 mg/m3 | 10 mg/m3 | Not Available | Not Available |
| Canada - Nova Scotia Occupational Exposure Limits | mineral oil | Oil mist - mineral | 5 mg/m3 | 10 mg/m3 | Not Available | TLV Basis: lung. As sampled by method that does not collect vapor. |
| Canada - Alberta Occupational Exposure Limits | mineral oil | Oil mist, mineral | 5 mg/m3 | 10 mg/m3 | Not Available | Not Available |
| Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits | mineral oil | Oil mist, mineral | 5 mg/m3 | 10 mg/m3 | Not Available | Not Available |
| Canada - Manitoba Occupational Exposure Limits | mineral oil | Not Available | 5 mg/m3 | Not Available | Not Available | Not Available |
| Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English) | mineral oil | Mineral oil (mist) | 5 mg/m3 | 10 mg/m3 | Not Available | Not Available |
| Canada - Northwest Territories Occupational Exposure Limits (English) | mineral oil | Oil mist, mineral | 5 mg/m3 | 10 mg/m3 | Not Available | Not Available |
| Canada - British Columbia Occupational Exposure Limits | mineral oil | Oil mist - mineral, severely refined | 1 mg/m3 | Not Available | Not Available | Not Available |
| Canada - Prince Edward Island Occupational Exposure Limits | mineral oil | Mineral oil, excluding metal working fluids - Pure, highly and severely refined | 5 mg/m3 | Not Available | Not Available | TLV® Basis: URT irr |

### EMERGENCY LIMITS

| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|---|---|---|---|---|
| 2258, 2259, 20368, 20369 SPECIAL TEC AA 5W-20 1L, 5L, 60L, 205L | Not Available | Not Available | Not Available | Not Available |

| Ingredient | Original IDLH | Revised IDLH |
|---|---|---|
| paraffinic distillate, heavy, hydrotreated (severe) | 2,500 mg/m3 | Not Available |
| mineral oil | 2,500 mg/m3 | Not Available |
| nonylated diphenylamines | Not Available | Not Available |

## Exposure controls

| | |
|---|---|
| **Appropriate engineering controls** | 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.<br>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.<br>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. |

**Continued...**

| | |
|---|---|
| **Personal protection** |  |
| **Eye and face protection** | ▸ Safety glasses with side shields<br>▸ Chemical goggles.<br>▸ 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. |
| **Skin protection** | See Hand protection below |
| **Hands/feet protection** | 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.<br>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.<br>Personal hygiene is a key element of effective hand care.<br>▸ Wear chemical protective gloves, e.g. PVC.<br>▸ Wear safety footwear or safety gumboots, e.g. Rubber |
| **Body protection** | See Other protection below |
| **Other protection** | ▸ Overalls.<br>▸ P.V.C. apron.<br>▸ Barrier cream. |

### Respiratory protection

Type AK-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.
Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|---|---|---|---|
| up to 10 x ES | AK-AUS P2 | - | AK-PAPR-AUS / Class 1 P2 |
| up to 50 x ES | - | AK-AUS / Class 1 P2 | - |
| up to 100 x ES | - | AK-2 P2 | AK-PAPR-2 P2 ^ |

^ - Full-face
A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, 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 degC)

- 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.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

## 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)** | 0.85 |
| **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)** | 45, 8.2 @ 100C |
| **Initial boiling point and boiling range (°C)** | Not Available | **Molecular weight (g/mol)** | Not Applicable |
| **Flash point (°C)** | 220 | **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)** | 0.118 |
| **Vapour pressure (kPa)** | Not Available | **Gas group** | Not Available |
| **Solubility in water (g/L)** | 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 |

**Continued...**

| | |
|---|---|
| **Chemical stability** | ▸ Unstable in the presence of incompatible materials.<br>▸ Product is considered stable.<br>▸ 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** | Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.<br>Inhalation hazard is increased at higher temperatures.<br>Inhaling high concentrations of mixed hydrocarbons can cause narcosis, with nausea, vomiting and lightheadedness. Low molecular weight (C2-C12) hydrocarbons can irritate mucous membranes and cause incoordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and stupor.<br>Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.<br>Inhalation of oil droplets or aerosols may cause discomfort and may produce chemical inflammation of the lungs. |
| **Ingestion** | Ingestion may result in nausea, abdominal irritation, pain and vomiting |
| **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.<br>Open cuts, abraded or irritated skin should not be exposed to this material<br>The material may accentuate any pre-existing dermatitis condition<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. |
| **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** | Oil may contact the skin or be inhaled. Extended exposure can lead to eczema, inflammation of hair follicles, pigmentation of the face and warts on the soles of the feet.<br>Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. |

| **2258, 2259, 20368, 20369 SPECIAL TEC AA 5W-20 1L, 5L, 60L, 205L** | **TOXICITY** | **IRRITATION** |
|---|---|---|
| | Not Available | Not Available |

| **paraffinic distillate, heavy, hydrotreated (severe)** | **TOXICITY** | **IRRITATION** |
|---|---|---|
| | Dermal (rabbit) LD50: >2000 mg/kg[2] | Not Available |
| | Inhalation (rat) LC50: >3.9 mg/l4 h[1] | |
| | Oral (rat) LD50: >2000 mg/kg[2] | |

| **mineral oil** | **TOXICITY** | **IRRITATION** |
|---|---|---|
| | Not Available | Not Available |

| **nonylated diphenylamines** | **TOXICITY** | **IRRITATION** |
|---|---|---|
| | Oral (rat) LD50: >5000 mg/kg[2] | 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* |

| | |
|---|---|
| **PARAFFINIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE)** | The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives;<br>The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has undergone, since:<br>• The adverse effects of these materials are associated with undesirable components, and<br>• The levels of the undesirable components are inversely related to the degree of processing;<br>• Distillate base oils receiving the same degree or extent of processing will have similar toxicities;<br>• The potential toxicity of residual base oils is independent of the degree of processing the oil receives.<br>• The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing.<br>Unrefined & mildly refined distillate base oils contain the highest levels of undesirable components, have the largest variation of hydrocarbon molecules and have shown the highest potential cancer-causing and mutation-causing activities. Highly and severely refined distillate base oils are produced from unrefined and mildly refined oils by removing or transforming undesirable components.<br>For highly and severely refined distillate base oils:<br>In animal studies, the acute, oral, semilethal dose is >5g/kg body weight and the semilethal dose by skin contact is >2g/kg body weight. The semilethal concentration for inhalation is 2.18 to >4 mg/L. The materials have varied from “non-irritating” to “moderately irritating” when tested for skin and eye irritation. Testing for sensitisation has been negative.<br>The substance is classified by IARC as Group 3:<br>**NOT** classifiable as to its carcinogenicity to humans.<br>Evidence of carcinogenicity may be inadequate or limited in animal testing. |
| **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.<br>A small but definite risk of occupational skin cancer occurs in workers exposed to persistent skin contamination by oils over a period of years. This risk has |

**Continued...**

| | |
|---|---|
| | been attributed to the presence of certain polycyclic aromatic hydrocarbons (PAH) (typified by benz[a]pyrene).<br>Petroleum oils which are solvent refined/extracted or severely hydrotreated, contain very low concentrations of both. |
| **NONYLATED DIPHENYLAMINES** | Heating of substituted diphenylamines may generate vapours which can irritate the eyes and airways. Drying of skin and mucous membranes leading to irritation may occur with prolonged or repeated contact. Overexposure may cause skin and airway irritation with dizziness and flu-like symptoms. All show a slight to very low order of toxicity following oral or topical administration. |

| | | | |
|---|---|---|---|
| **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 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

**2258, 2259, 20368, 20369 SPECIAL TEC AA 5W-20 1L, 5L, 60L, 205L**

| ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
|---|---|---|---|---|
| Not Available | Not Available | Not Available | Not Available | Not Available |

**paraffinic distillate, heavy, hydrotreated (severe)**

| ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
|---|---|---|---|---|
| EC50 | 48 | Crustacea | >1000mg/L | 1 |
| EC50 | 96 | Algae or other aquatic plants | >1000mg/L | 1 |
| NOEC | 504 | Crustacea | >1mg/L | 1 |

**mineral oil**

| ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
|---|---|---|---|---|
| Not Available | Not Available | Not Available | Not Available | Not Available |

**nonylated diphenylamines**

| ENDPOINT | TEST DURATION (HR) | SPECIES | VALUE | SOURCE |
|---|---|---|---|---|
| NOEC | 96 | Crustacea | <10mg/L | 1 |

***Legend:*** *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*

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

### 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**

- **DO NOT** allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

## SECTION 14 TRANSPORT INFORMATION

**Continued...**

### Labels Required

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

**Land transport (TDG): 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

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

**PARAFFINIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE)(64742-54-7.) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

| | |
|---|---|
| Canada - Northwest Territories Occupational Exposure Limits (English) | Canada - Quebec Permissible Exposure Values for Airborne Contaminants (French) |
| Canada - Alberta Occupational Exposure Limits | Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits |
| Canada - British Columbia Occupational Exposure Limits | Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances |
| Canada - Nova Scotia Occupational Exposure Limits | Canada Categorization decisions for all DSL substances |
| Canada - Prince Edward Island Occupational Exposure Limits | Canada Domestic Substances List (DSL) |
| Canada - Prince Edward Island Occupational Exposure Limits - Carcinogens | International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs |

**MINERAL OIL(NOT AVAILABLE) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

| | |
|---|---|
| Canada - Northwest Territories Occupational Exposure Limits (English) | Canada - Prince Edward Island Occupational Exposure Limits - Carcinogens |
| Canada - Alberta Occupational Exposure Limits | Canada - Quebec Permissible Exposure Values for Airborne Contaminants (French) |
| Canada - British Columbia Occupational Exposure Limits | Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits |
| Canada - Nova Scotia Occupational Exposure Limits | Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances |
| Canada - Prince Edward Island Occupational Exposure Limits | International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs |

**NONYLATED DIPHENYLAMINES(36878-20-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

| | |
|---|---|
| Canada Categorization decisions for all DSL substances | Canada Domestic Substances List (DSL) |

### National Inventory Status

| National Inventory | Status |
|---|---|
| Australia - AICS | N (mineral oil) |
| Canada - DSL | N (mineral oil) |
| Canada - NDSL | N (paraffinic distillate, heavy, hydrotreated (severe); nonylated diphenylamines; mineral oil) |
| China - IECSC | N (mineral oil) |
| Europe - EINEC / ELINCS / NLP | N (mineral oil) |
| Japan - ENCS | N (mineral oil) |
| Korea - KECI | N (mineral oil) |
| New Zealand - NZIoC | N (mineral oil) |
| Philippines - PICCS | N (mineral oil) |
| USA - TSCA | N (mineral oil) |
| ***Legend:*** | *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

| | |
|---|---|
| **Revision Date** | 05/10/2018 |
| **Initial Date** | 05/10/2018 |

### 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

**Continued...**

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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**end of SDS**