

# **CRC Grey Gasket**

# **CRC Industries (CRC Industries New Zealand)**

Chemwatch: 22-3177 Version No: 6.1

Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Chemwatch Hazard Alert Code: 2

Issue Date: 20/08/2021 Print Date: 10/09/2024 S.GHS.NZL.EN

### SECTION 1 Identification of the substance / mixture and of the company / undertaking

### **Product Identifier**

| Product name                  | CRC Grey Gasket |
|-------------------------------|-----------------|
| Chemical Name                 | Not Applicable  |
| Synonyms                      | Not Available   |
| Chemical formula              | Not Applicable  |
| Other means of identification | Not Available   |

### Relevant identified uses of the substance or mixture and uses advised against

### Details of the manufacturer or supplier of the safety data sheet

| Registered company name | CRC Industries (CRC Industries New Zealand)         |  |
|-------------------------|---|--|
| Address                 | 10 Highbrook Drive East Tamaki Auckland New Zealand |  |
| Telephone               | +64 9 272 2700                                      |  |
| Fax                     | +64 9 274 9696                                      |  |
| Website                 | www.crc.co.nz                                       |  |
| Email                   | - No EMAL ID NEEDED for NZ - JACK                   |  |

### **Emergency telephone number**

| Association / Organisation        | CRC Industries (CRC Industries New Zealand)  | CHEMWATCH EMERGENCY RESPONSE (24/7) |
|-----------------------------------|--|-------------------------------------|
| Emergency telephone numbers       | NZ Poisons Centre 0800 POISON (0800 764 766) | +64 800 700 112                     |
| Other emergency telephone numbers | 111 (NZ Emergency Services)                  | +61 3 9573 3188                     |

### **SECTION 2 Hazards identification**

### Classification of the substance or mixture

| Classification <sup>[1]</sup>                   | Sensitisation (Skin) Category 1, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Carcinogenicity Category 2, Specific Target Organ Toxicity - Single Exposure Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 2, Hazardous to Soil Organisms, Hazardous to Terrestrial Vertebrates |
|---|--|
| Legend:   | 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No<br>1272/2008 - Annex VI  |
| Determined by Chemwatch using GHS/HSNO criteria | 6.5B (contact), 6.7B, 6.9B, 9.2B, 9.3C   |

### Label elements

Hazard pictogram(s)







# Hazard statement(s)

| H317 | May cause an allergic skin reaction.                               |
|------|--|
| H336 | May cause drowsiness or dizziness.                                 |
| H351 | Suspected of causing cancer.                                       |
| H371 | May cause damage to organs.  |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H422 | Hazardous to soil organisms.                                       |
| H433 | Hazardous to terrestrial vertebrates.                              |

# Precautionary statement(s) Prevention

| P280 | Wear protective gloves and protective clothing. |  |
|------|---|--|
| P271 | Use only outdoors or in a well-ventilated area. |  |
| P260 | Do not breathe mist/vapours/spray.              |  |
| P201 | Obtain special instructions before use.         |  |

# Precautionary statement(s) Response

| P302+P352 | IF ON SKIN: Wash with plenty of water.                                      |
|-----------|---|
| P308+P311 | IF exposed or concerned: Call a POISON CENTER/doctor/physician/first aider. |
| P312      | Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.       |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention.            |

# Precautionary statement(s) Storage

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

### Precautionary statement(s) Disposal

| DECA. Dispuss of soutestable statements sufficiently an analysis of soutestable statements and soutestable statements.   | Trocadionally Statement (c) Proposal |      |  |
|--|--------------------------------------|------|--|
| Dispose of contents/container to authorised nazardous or special waste collection point in accordance with any local re- |                                      | P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |

# **SECTION 3 Composition / information on ingredients**

# Substances

See section below for composition of Mixtures

# Mixtures

| CAS No   | %[weight] | Name  |
|--|-----------|---|
| 64742-46-7.  | <10       | distillates, petroleum, middle, hydrotreated      |
| 22984-54-9   | <10       | methyltri(methylethylketoxime)silane              |
| 96-29-7  | <10       | methyl ethyl ketoxime                             |
| 83817-72-5   | <10       | <u>di(methylethylketoxime)methoxymethylsilane</u> |
| Legend: 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available |           |   |

# **SECTION 4 First aid measures**

# **Description of first aid measures**

| Eye Contact  | If this product comes in contact with the eyes:  • Wash out immediately with fresh running water.  • 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.  • Seek medical attention without delay; if pain persists or recurs seek medical attention.  • Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
|--------------|---|
| Skin Contact | If skin contact occurs:  Immediately remove all contaminated clothing, including footwear.  Flush skin and hair with running water (and soap if available).  Seek medical attention in event of irritation.   |
| Inhalation   | <ul> <li>If fumes or combustion products are inhaled remove from contaminated area.</li> <li>Lay patient down. Keep warm and rested.</li> </ul>   |

|           | <ul> <li>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>Transport to hospital, or doctor.</li> </ul>  |
|-----------|---|
| Ingestion | <ul> <li>If swallowed do NOT induce vomiting.</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> |

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

- 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.

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

### **SECTION 5 Firefighting measures**

### **Extinguishing media**

- Water spray or fog.
- Alcohol stable foam.
- Dry chemical powder.
- 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

# Advice for firefighters

| Fire Fighting         | <ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> </ul>   |
|-----------------------|--|
| Fire/Explosion Hazard | <ul> <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 toxic fumes of carbon monoxide (CO).</li> <li>Combustion products include:</li> <li>carbon monoxide (CO)</li> <li>carbon dioxide (CO2)</li> <li>nitrogen oxides (NOx)</li> <li>silicon dioxide (SiO2)</li> <li>other pyrolysis products typical of burning organic material.</li> <li>May emit poisonous fumes.</li> </ul> |

### **SECTION 6 Accidental release measures**

### Personal precautions, protective equipment and emergency procedures

See section 8

### **Environmental precautions**

# Methods and material for containment and cleaning up

| Minor Spills | <ul> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours/ aerosols/ or dusts and avoid contact with skin and eyes.</li> <li>Control personal contact with the substance, by using protective equipment.</li> <li>Contain and absorb spill with sand, earth, inert material or vermiculite.</li> </ul> |
|--------------|---|
| Major Spills | <ul> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> </ul>                                |

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

# **SECTION 7 Handling and storage**

# Precautions for safe handling

| Safe handling     | <ul> <li>Containers, even those that have been emptied, may contain explosive vapours.</li> <li>Do NOT cut, drill, grind, weld or perform similar operations on or near containers.</li> <li>Electrostatic discharge may be generated during pumping - this may result in fire.</li> <li>Ensure electrical continuity by bonding and grounding (earthing) all equipment.</li> <li>Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (&lt;=1 m/sec until fill pipe submerged to twice its diameter, then &lt;= 7 m/sec).</li> <li>Avoid splash filling.</li> <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> |
|-------------------|---|
| Other information | <ul> <li>Keep dry.</li> <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

| Suitable container      | <ul> <li>Polyethylene or polypropylene container.</li> <li>Packing as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul> |
|-------------------------|---|
| Storage incompatibility | <ul><li>▶ Contact with water liberates highly flammable gases</li><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   |
|---|--|----------------------|------------|-------------|------------------|---|
| New Zealand Workplace<br>Exposure Standards (WES) | distillates, petroleum, middle, hydrotreated | Oil mist,<br>mineral | 5<br>mg/m3 | 10<br>mg/m3 | Not<br>Available | (om) - Sampled by a method that does not collect vapour |

### **Emergency Limits**

| Ingredient                                   | TEEL-1      | TEEL-2      | TEEL-3       |
|--|-------------|-------------|--------------|
| distillates, petroleum, middle, hydrotreated | 1,100 mg/m3 | 1,800 mg/m3 | 40,000 mg/m3 |
| methyl ethyl ketoxime                        | 30 ppm      | 56 ppm      | 250 ppm      |

| Ingredient                                   | Original IDLH | Revised IDLH  |
|--|---------------|---------------|
| distillates, petroleum, middle, hydrotreated | 2,500 mg/m3   | Not Available |
| methyltri(methylethylketoxime)silane         | Not Available | Not Available |
| methyl ethyl ketoxime                        | Not Available | Not Available |
| di(methylethylketoxime)methoxymethylsilane   | Not Available | Not Available |

# Occupational Exposure Banding

| Ingredient                                 | Occupational Exposure Band Rating  | Occupational Exposure Band Limit |  |
|--|--|----------------------------------|--|
| methyltri(methylethylketoxime)silane       | D  | > 0.1 to ≤ 1 ppm                 |  |
| methyl ethyl ketoxime                      | D  | > 0.1 to ≤ 1 ppm                 |  |
| di(methylethylketoxime)methoxymethylsilane | D  | > 0.1 to ≤ 1 ppm                 |  |
| Notes:                                     | Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health. |                                  |  |

### **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.  The basic types of engineering controls are:  Process controls which involve changing the way a job activity or process is done to reduce the risk.  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. |
|--|---|
| Individual protection<br>measures, such as<br>personal protective<br>equipment |   |
| Eye and face protection  | <ul> <li>Safety glasses with side shields.</li> <li>Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]</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.</li> </ul>   |
| Skin protection  | See Hand protection below   |
| Hands/feet protection  | <ul> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber</li> <li>NOTE:</li> <li>The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul>  |
| Body protection  | See Other protection below  |
| Other protection   | <ul> <li>Protective overalls, closely fitted at neck and wrist.</li> <li>Eye-wash unit.</li> <li>IN CONFINED SPACES:</li> <li>Non-sparking protective boots</li> <li>Static-free clothing.</li> <li>Ensure availability of lifeline.</li> </ul>   |

# Respiratory protection

Type A-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                      | A-AUS P2             | -                    | A-PAPR-AUS / Class 1 P2 |
| up to 50 x ES                      | -                    | A-AUS / Class 1 P2   | -                       |
| up to 100 x ES                     | -                    | A-2 P2               | A-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)

# **SECTION 9 Physical and chemical properties**

### Information on basic physical and chemical properties

| Appearance     | Grey paste with a low oxime odour. |   |               |
|----------------|------------------------------------|---|---------------|
| Physical state | Non Slump Paste                    | Relative density (Water = 1)                | 0.985         |
| Odour          | Not Available                      | Partition coefficient n-<br>octanol / water | Not Available |

| Odour threshold                                   | Not Available  | Auto-ignition temperature (°C)                            | Not Available  |
|---|----------------|---|----------------|
| pH (as supplied)                                  | Not Available  | Decomposition temperature (°C)                            | Not Available  |
| Melting point / freezing point (°C)               | Not Available  | Viscosity (cSt)   | Not Available  |
| Initial boiling point and boiling range (°C)      | Not Available  | Molecular weight (g/mol)                                  | Not Applicable |
| Flash point (°C)                                  | 100 (CC)       | 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)                                 | Not Available  |
| Vapour pressure (kPa)                             | Not Available  | Gas group   | Not Available  |
| Solubility in water                               | Not Available  | pH as a solution (1%)                                     | Not Available  |
| Vapour density (Air = 1)                          | Not Available  | VOC g/L   | Not Available  |
| Heat of Combustion (kJ/g)                         | Not Available  | Ignition Distance (cm)                                    | Not Available  |
| Flame Height (cm)                                 | Not Available  | Flame Duration (s)  | Not Available  |
| Enclosed Space Ignition<br>Time Equivalent (s/m3) | Not Available  | Enclosed Space Ignition<br>Deflagration Density<br>(g/m3) | 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      | 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.  Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.  |
|--------------|--|
| Ingestion    | Accidental ingestion of the material may be damaging to the health of the individual.  |
| Skin Contact | Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.  Open cuts, abraded or irritated skin should not be exposed to this material  The material may accentuate any pre-existing dermatitis condition  |
| Eye          | This material can cause eye irritation and damage in some persons.   |
| Chronic      | There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.  Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.  There are generally two types of oximes: ketoximes, derived from ketones and aldoximes, derived from aldehydes. Several ketoximes have elicited cancer-causing effects on chronic exposure.  Repeated application of mildly hydrotreated oils (principally paraffinic), to mouse skin, induced skin tumours; no tumours were induced with severely hydrotreated oils.  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.  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. |

| CRC Croy Cooket | TOXICITY      | IRRITATION    |
|-----------------|---------------|---------------|
| CRC Grey Gasket | Not Available | Not Available |

|  |  | TOXICITY   | IRRITATION  |
|--|--|--|---|
|  |  | Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>     | Not Available   |
| distillates, petroleum, middle,                    | , hydrotreated   | Inhalation (Rat) LC50: 1.72 mg/l4h <sup>[1]</sup>    |   |
|  |  | Oral (Rat) LD50: >5000 mg/kg <sup>[2]</sup>          |   |
| methyltri(methylethylketoxime)silane               |  | TOXICITY   | IRRITATION  |
|  |  | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>        | Eye: adverse effect observed (irritating) <sup>[1]</sup>          |
|  |  | Oral (Rat) LD50: 2453 mg/kg <sup>[1]</sup>           | Skin: no adverse effect observed (not irritating) <sup>[1]</sup>  |
| methyl ethyl ketoxime                              |  | TOXICITY   | IRRITATION  |
|  |  | Dermal (rabbit) LD50: >184<1840 mg/kg <sup>[1]</sup> | Eye (rabbit): 0.1 ml - SEVERE                                     |
|  |  | Inhalation (Rat) LC50: >4.83 mg/l4h <sup>[1]</sup>   | Eye: adverse effect observed (irreversible damage) <sup>[1]</sup> |
|  |  | Oral (Rat) LD50: >900 mg/kg <sup>[1]</sup>           | Skin: adverse effect observed (irritating) <sup>[1]</sup>         |
| diferentia de la cherella de crimo e Verentia e co |  | TOXICITY   | IRRITATION  |
| di(methylethylketoxime)methoxymethylsilane         |  | Not Available  | Not Available   |
| Legend:  | 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 |  |   |

# DISTILLATES, PETROLEUM, MIDDLE, HYDROTREATED

typical for isoparaffinic hydrocarbons: isoparaffinic hydrocarbon:

Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cycloparaffins.

The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet. Some hydrocarbons may appear unchanged as in the lipoprotein particles in the gut lymph, but most hydrocarbons partly separate from fats and undergo metabolism in the gut cell. The materials included in the Lubricating Base Oils category are related from both process and physical-chemical perspectives;

The potential toxicity of a specific distillate base oil is inversely related to the severity or extent of processing the oil has undergone, since:

- $\bullet \ \ \text{The adverse effects of these materials are associated with undesirable components, and}$
- The levels of the undesirable components are inversely related to the degree of processing:
- Distillate base oils receiving the same degree or extent of processing will have similar toxicities;
- The potential toxicity of residual base oils is independent of the degree of processing the oil receives.
- The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing.

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. In comparison to unrefined and mildly refined base oils, the highly and severely refined distillate base oils have a smaller range of hydrocarbon molecules and have demonstrated very low mammalian toxicity. Testing of residual oils for mutation-causing and cancer-causing potential has shown negative results, supporting the belief that these materials lack biologically active components or the components are largely non-bioavailable due to their molecular size.

Toxicity testing has consistently shown that lubricating base oils have low acute toxicities. For highly and severely refined distillate base oils:

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.

### METHYLTRI(METHYLETHYLKETOXIME)SILANE

alpha,beta-Unsaturated oximes represent two previously unknown classes of prohaptens. Three putative metabolites were proposed as sensitising agents. These included two diastereometric alpha,beta-epoxy oximes and a nitro analogue. When tested in the LLNA,alpha,beta-epoxy oximes.

Allergic Contact Dermatitis—Formation, Structural Requirements, and Reactivity of Skin Sensitizers.

Ann-Therese Karlberg et al: Chem. Res.

The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

METHYL ETHYL KETOXIME

Mammalian lymphocyte mutagen \*Huls Canada \*\* Merck

|   | For methyl ethyl ketoxime (MEKO): At medium to high concentrations, MEKO increased the rate of liver tumours in animal testing. This seems to be due to the breakdown of MEKO into a cancer-causing substance, and occurred more often in males. MEKO does not seem to cause mutations. Repeated exposure appeared to cause effects on the nose, spleen, liver, kidney and blood.   |
|---|---|
| CRC Grey Gasket & METHYLTRI(METHYLETHYLKETOXIME)SILANE & METHYL ETHYL KETOXIME & DI(METHYLETHYLKETOXIME)METHOXYMETHYLSILANE | The following information refers to contact allergens as a group and may not be specific to this product.  Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. |
| CRC Grey Gasket & DI(METHYLETHYLKETOXIME)METHOXYMETHYLSILANE  | Low molecular weight alkoxysilane can cause irreversible lung damage when inhaled at low dose. It is not an obvious skin irritant. However, studies suggest with repeated occupational exposure, methoxysilane may cause damage to the eye and skin as well as cancer.  |

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

**Legend: X** − Data either not available or does not fill the criteria for classification

✓ – Data available to make classification

# **SECTION 12 Ecological information**

### Toxicity

|  | Endpoint         | Test Duration (hr) | Species                       | Value            | Source           |
|--|------------------|--------------------|-------------------------------|------------------|------------------|
| CRC Grey Gasket                              | Not<br>Available | Not Available      | Not Available                 | Not<br>Available | Not<br>Available |
| distillates maturals um middle budustussted  | Endpoint         | Test Duration (hr) | Species                       | Value            | Source           |
| distillates, petroleum, middle, hydrotreated | NOEC(ECx)        | 72h                | Algae or other aquatic plants | <0.03mg/l        | 1                |
|  | Endpoint         | Test Duration (hr) | Species                       | Value            | Source           |
|  | LC50             | 96h                | Fish                          | >100mg/l         | 2                |
| methyltri(methylethylketoxime)silane         | EC50             | 72h                | Algae or other aquatic plants | 6.1mg/l          | 2                |
|  | EC50             | 48h                | Crustacea                     | 201mg/l          | 2                |
|  | NOEC(ECx)        | 72h                | Algae or other aquatic plants | 1mg/l            | 2                |
|  | Endpoint         | Test Duration (hr) | Species                       | Value            | Source           |
|  | BCF              | 1008h              | Fish                          | 0.5-0.6          | 7                |
| and defined between                          | EC50             | 72h                | Algae or other aquatic plants | ~6.09mg/l        | 2                |
| methyl ethyl ketoxime                        | EC50             | 48h                | Crustacea                     | ~201mg/l         | 2                |
|  | LC50             | 96h                | Fish                          | >100mg/l         | 2                |
|  | NOEC(ECx)        | 72h                | Algae or other aquatic plants | ~1.02mg/l        | 2                |
|  | Endpoint         | Test Duration (hr) | Species                       | Value            | Source           |
| di(methylethylketoxime)methoxymethylsilane   | Not<br>Available | Not Available      | Not Available                 | Not<br>Available | Not<br>Available |

Legend:

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 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

Drinking Water Standards: hydrocarbon total: 10 ug/l (UK max.).

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

# Persistence and degradability

| Ingredient                           | Persistence: Water/Soil | Persistence: Air |
|--------------------------------------|-------------------------|------------------|
| methyltri(methylethylketoxime)silane | HIGH                    | HIGH             |
| methyl ethyl ketoxime                | LOW                     | LOW              |

### Bioaccumulative potential

| Ingredient                           | Bioaccumulation       |
|--------------------------------------|-----------------------|
| methyltri(methylethylketoxime)silane | LOW (LogKOW = 7.8316) |
| methyl ethyl ketoxime                | LOW (BCF = 5.8)       |

### Mobility in soil

| Ingredient                           | Mobility               |
|--------------------------------------|------------------------|
| methyltri(methylethylketoxime)silane | LOW (Log KOC = 590900) |
| methyl ethyl ketoxime                | LOW (Log KOC = 130.8)  |

### **SECTION 13 Disposal considerations**

#### Waste treatment methods

- ▶ Containers may still present a chemical hazard/ danger when empty.
- Return to supplier for reuse/ recycling if possible.

### Otherwise:

# Product / Packaging disposal

- If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
- ▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product.
- ▶ 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.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

### **Disposal Requirements**

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

### **SECTION 14 Transport information**

# **Labels Required**

| Marine Pollutant | NO             |
|------------------|----------------|
| HAZCHEM          | Not Applicable |

Land transport (UN): 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

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

Not Applicable

### 14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name                                 | Group         |
|--|---------------|
| distillates, petroleum, middle, hydrotreated | Not Available |
| methyltri(methylethylketoxime)silane         | Not Available |
| methyl ethyl ketoxime                        | Not Available |
| di(methylethylketoxime)methoxymethylsilane   | Not Available |

# 14.7.3. Transport in bulk in accordance with the IGC Code

| Product name                                 | Ship Type     |
|--|---------------|
| distillates, petroleum, middle, hydrotreated | Not Available |
| methyltri(methylethylketoxime)silane         | Not Available |

| Product name                               | Ship Type     |
|--|---------------|
| methyl ethyl ketoxime                      | Not Available |
| di(methylethylketoxime)methoxymethylsilane | Not Available |

### **SECTION 15 Regulatory information**

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

This substance is to be managed using the conditions specified in an applicable Group Standard

| HSR Number | Group Standard  |  |
|------------|---|--|
| HSR002670  | Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017 |  |

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

### distillates, petroleum, middle, hydrotreated is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

#### methyltri(methylethylketoxime)silane is found on the following regulatory lists

New Zealand Inventory of Chemicals (NZIoC)

### methyl ethyl ketoxime is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

### di(methylethylketoxime)methoxymethylsilane is found on the following regulatory lists

New Zealand Inventory of Chemicals (NZIoC)

# **Additional Regulatory Information**

Not Applicable

### **Hazardous Substance Location**

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Hazard Class   | Quantities     |
|----------------|----------------|
| Not Applicable | Not Applicable |

### **Certified Handler**

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Class of substance | Quantities     |
|--------------------|----------------|
| Not Applicable     | Not Applicable |

Refer Group Standards for further information

### Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Hazard Class | Gas (aggregate water capacity in mL) | Liquid<br>(L) | Solid<br>(kg) | Maximum quantity per package for each classification |
|--------------|--------------------------------------|---------------|---------------|--|
| 6.5A or 6.5B | 120                                  | 1             | 3             |  |

### **Tracking Requirements**

Not Applicable

### **National Inventory Status**

| National Inventory                                 | Status  |  |
|--|---|--|
| Australia - AIIC / Australia<br>Non-Industrial Use | Yes   |  |
| Canada - DSL                                       | Yes   |  |
| Canada - NDSL                                      | No (distillates, petroleum, middle, hydrotreated; methyltri(methylethylketoxime)silane; methyl ethyl ketoxime; di(methylethylketoxime)methoxymethylsilane)                                      |  |
| China - IECSC                                      | Yes   |  |
| Europe - EINEC / ELINCS /<br>NLP                   | Yes   |  |
| Japan - ENCS                                       | No (di(methylethylketoxime)methoxymethylsilane)   |  |
| Korea - KECI                                       | Yes   |  |
| New Zealand - NZIoC                                | Yes   |  |
| Philippines - PICCS                                | Yes   |  |
| USA - TSCA   | No (di(methylethylketoxime)methoxymethylsilane)   |  |
| Taiwan - TCSI                                      | Yes   |  |
| Mexico - INSQ                                      | No (methyltri(methylethylketoxime)silane; di(methylethylketoxime)methoxymethylsilane)   |  |
| Vietnam - NCI                                      | Yes   |  |
| Russia - FBEPH                                     | No (di(methylethylketoxime)methoxymethylsilane)   |  |
| Legend:  | Yes = All CAS declared ingredients are on the inventory  No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration. |  |

### **SECTION 16 Other information**

| Revision Date | 20/08/2021 |
|---------------|------------|
| Initial Date  | 05/10/2009 |

### **SDS Version Summary**

| Version | Date of Update | Sections Updated  |
|---------|----------------|---|
| 5.1     | 30/12/2020     | Classification change due to full database hazard calculation/update. |
| 6.1     | 20/08/2021     | Classification change due to full database hazard calculation/update. |

### 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
- ▶ ES: Exposure Standard
- ▶ 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
- ▶ DNEL: Derived No-Effect Level
- ▶ PNEC: Predicted no-effect concentration
- ▶ AIIC: Australian Inventory of Industrial Chemicals
- ▶ DSL: Domestic Substances List
- ▶ NDSL: Non-Domestic Substances List
- ▶ IECSC: Inventory of Existing Chemical Substance in China
- ▶ EINECS: European INventory of Existing Commercial chemical Substances

- ▶ ELINCS: European List of Notified Chemical Substances
- ▶ NLP: No-Longer Polymers
- ▶ ENCS: Existing and New Chemical Substances Inventory
- ▶ KECI: Korea Existing Chemicals Inventory
- ► NZIoC: New Zealand Inventory of Chemicals
- ▶ PICCS: Philippine Inventory of Chemicals and Chemical Substances
- ► TSCA: Toxic Substances Control Act
- ▶ TCSI: Taiwan Chemical Substance Inventory
- ▶ INSQ: Inventario Nacional de Sustancias Químicas
- ▶ NCI: National Chemical Inventory
- ▶ FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

### This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH.

TEL (+61 3) 9572 4700.