



## GulfSea Cylcare XP 5040

### Gulf Marine Pte. Ltd.

Chemwatch: 5602-99

Version No: 3.1

Safety Data Sheet in accordance with SS 586-3:2022

Issue Date: 24/07/2023

Print Date: 07/05/2025

S.GHS.SGP.EN.E

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

##### Product Identifier

Product name	GulfSea Cylcare XP 5040
Chemical Name	Not Applicable
Synonyms	Not Available
Chemical formula	Not Applicable
Other means of identification	GulfSea Cylcare XP 5040X

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

Relevant identified uses	Marine cylinder oil. Use according to manufacturer's directions.
--------------------------	---

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

Registered company name	Gulf Marine Pte. Ltd.
Address	37 Tuas Road 638503 Singapore
Telephone	+65 6592 0120
Fax	Not Available
Website	Not Available
Email	sds@gulf-marine.com

##### Emergency telephone number


Association / Organisation	Gulf Marine Pte. Ltd.
Emergency telephone number(s)	+65 6592 0120
Other emergency telephone number(s)	Not Available

#### SECTION 2 Hazards identification

##### Classification of the substance or mixture

Classification	Sensitisation (Skin) Category 1
----------------	---------------------------------

##### Label elements

Hazard pictogram(s)	
Signal word	Warning

##### Hazard statement(s)

H317	May cause an allergic skin reaction.
------	--------------------------------------

##### Precautionary statement(s) Prevention

P280	Wear protective gloves and protective clothing.
P261	Avoid breathing mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
------	--

Other hazards

Cumulative effects may result following exposure\*.

May produce skin discomfort\*.

\*LIMITED EVIDENCE

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	% [weight]	Name	Synonyms	Chemical formula
63748-98-1	1-10	mineral oil	naphthenic process oil paraffinic process oil aromatic process oil; rubber process oil rubber extender oil refined mineral oil; refined petroleum oil Flexon process oil mineral oils; highly refined mineral oil CAS RN: 63748-98-1	Not Available
Not Available		containing one or more of the following:		Not Available
64742-54-7.		paraffinic distillate, heavy, hydrotreated (severe).	mineral oil, petroleum distillates, hydrotreated heavy paraffinic; distillates (petroleum), hydrotreated heavy paraffinic; heavy paraffinic distillate, hydrotreated; petroleum distillates hydrotreated heavy paraffinic; BYK-Chemie BYK-035	N/A
64742-65-0.		paraffinic distillate, heavy, solvent-dewaxed (severe).	solvent refined solvent dewaxed heavy paraffinic distillate; petroleum distillates, solvent dewaxed heavy paraffinic; mineral oil, petroleum distillates, solvent dewaxed heavy paraffinic; Caltex Vacuum Pump Oil R31; Caltex Propar 52; Sinclairs Vacuum Pump Oil R31	Not Available
64742-55-8.		paraffinic distillate, light, hydrotreated (severe).	mineral oil, petroleum distillates, hydrotreated (severe) light-paraffinic; distillates (petroleum), hydrotreated (severe) light paraffinic; hydrotreated (severe) light paraffinic distillate; generic hydrocarbon; SK Lubricants Yubase 3	Not Available
64742-56-9.		paraffinic distillate, light, solvent-dewaxed (severe).	light solvent-dewaxed paraffinic oil severely refined; mineral oil, petroleum distillates, solvent dewaxed light paraffinic; paraffinic oil, light solvent dewaxed generichydrocarbon lubricant	Not Available
1078715-97-5	1-10	calcium sulfonate	Reaction products of benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs. para-, calcium salts	Not Available
4259-15-8	<1	zinc bis(2-ethylhexyl)dithiophosphate	C32-H68-O4-P2-S4-Zn; zinc, bis[O,O-bis(2-ethylhexyl)phosphorodithioato-S,S']-, (T-4)-; phosphorodithioic acid, O,O-bis(2-ethylhexyl) ester zinc salt; 1-hexanol, 2-ethyl-, O,O-(hydrogen phosphorodithioate) zinc salt; 1-hexanol, 2-ethyl-, O,O-diester with phosphorodithioic acid, zinc salt; zinc bis(2-ethylhexyl)phosphorodithioate; 2-ethyl-1-hexanol, O,O-diester with phosphorodithioic acid, zinc salt; zinc dialkyl dithiophosphate; zinc dialkyldithiophosphate	C32H68O4P2S4Zn[C32-H68-P2-S4.2n
121158-58-5	<1	dodecylphenol, branched	C18-H30-O; phenol, dodecyl-, branched; 4-dodecylphenol, branched; dodecylphenol, mixed isomers; PDDP	C18-H30-O[C6H6O]C18H30O
Not Available	balance	Ingredients determined not to be hazardous		Not Available

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: <ul style="list-style-type: none"><li>▶ Wash out immediately with fresh running water.</li><li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li><li>▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.</li><li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li></ul>
Skin Contact	If skin contact occurs: <ul style="list-style-type: none"><li>▶ Immediately remove all contaminated clothing, including footwear.</li></ul>

	<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>
Inhalation	<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>
Ingestion	<ul style="list-style-type: none"> <li>▶ <b>If swallowed do NOT induce vomiting.</b></li> <li>▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>▶ Observe the patient carefully.</li> <li>▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>▶ Seek medical advice.</li> </ul>

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

Treat symptomatically.

**SECTION 5 Firefighting measures****Extinguishing media**

- ▶ Foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

**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 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> <li>▶ Avoid spraying water onto liquid pools.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> </ul>
Fire/Explosion Hazard	<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 toxic fumes of carbon monoxide (CO).</li> <li>▶ May emit acid smoke.</li> <li>▶ Mists containing combustible materials may be explosive.</li> </ul> <p>Combustion products include: carbon dioxide (CO<sub>2</sub>) phosphorus oxides (PO<sub>x</sub>) sulfur oxides (SO<sub>x</sub>) other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.</p> <p><b>CARE:</b> 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.</p>

**SECTION 6 Accidental release measures****Personal precautions, protective equipment and emergency procedures**

See section 8

**Environmental precautions**

See section 12

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

Minor Spills	<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> <li>▶ Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>▶ Wipe up.</li> <li>▶ Place in a suitable, labelled container for waste disposal.</li> </ul>
Major Spills	<p>Moderate hazard.</p> <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Increase ventilation.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Contain spill with sand, earth or vermiculite.</li> <li>▶ Collect recoverable product into labelled containers for recycling.</li> <li>▶ Absorb remaining product with sand, earth or vermiculite.</li> <li>▶ Collect solid residues and seal in labelled drums for disposal.</li> <li>▶ Wash area and prevent runoff into drains.</li> <li>▶ If contamination of drains or waterways occurs, advise emergency services.</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	<p>Hydrogen sulfide (H2S or Sour Gas) may be present when loading and unloading transport vessels. Stay upwind and away from newly opened hatches and allow to vent thoroughly before handling material. Steam may be used to vent hatches. Keep all sources of ignition away from loading area.</p> <ul style="list-style-type: none"><li>▶ <b>DO NOT</b> allow clothing wet with material to stay in contact with skin</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><li>▶ <b>DO NOT</b> enter confined spaces until atmosphere has been checked.</li><li>▶ Avoid smoking, naked lights or ignition sources.</li><li>▶ Avoid contact with incompatible materials.</li><li>▶ When handling, <b>DO NOT</b> eat, drink or smoke.</li><li>▶ Keep containers securely sealed when not in use.</li><li>▶ Avoid physical damage to containers.</li><li>▶ Always wash hands with soap and water after handling.</li><li>▶ Work clothes should be laundered separately.</li><li>▶ Use good occupational work practice.</li><li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li><li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.</li></ul>
Other information	<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><li>▶ Store away from incompatible materials and foodstuff containers.</li><li>▶ Protect containers against physical damage and check regularly for leaks.</li><li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li></ul>

Conditions for safe storage, including any incompatibilities

Suitable container	<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>
Storage incompatibility	<ul style="list-style-type: none"><li>▶ Avoid reaction with oxidising agents</li></ul>

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)


INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Singapore Permissible Exposure Limits of Toxic Substances	mineral oil	Oil Mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Singapore Permissible Exposure Limits of Toxic Substances	paraffinic distillate, heavy, hydrotreated (severe)	Oil Mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Singapore Permissible Exposure Limits of Toxic Substances	paraffinic distillate, heavy, solvent-dewaxed (severe)	Oil Mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Singapore Permissible Exposure Limits of Toxic Substances	paraffinic distillate, light, hydrotreated (severe)	Oil Mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Singapore Permissible Exposure Limits of Toxic Substances	paraffinic distillate, light, solvent-dewaxed (severe)	Oil Mist, mineral	5 mg/m3	10 mg/m3	Not Available	Not Available
Singapore Permissible Exposure Limits of Toxic Substances	zinc bis(2-ethylhexyl)dithiophosphate	Nuisance particulates	10 mg/m3	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
mineral oil	2,500 mg/m3	Not Available
paraffinic distillate, heavy, hydrotreated (severe)	2,500 mg/m3	Not Available
paraffinic distillate, heavy, solvent-dewaxed (severe)	2,500 mg/m3	Not Available
paraffinic distillate, light, hydrotreated (severe)	2,500 mg/m3	Not Available
paraffinic distillate, light, solvent-dewaxed (severe)	2,500 mg/m3	Not Available
calcium sulfonate	Not Available	Not Available
zinc bis(2-ethylhexyl)dithiophosphate	Not Available	Not Available
dodecylphenol, branched	Not Available	Not Available

## GulfSea Cylcare XP 5040

## Exposure controls

<p><b>Appropriate engineering controls</b></p>	<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. 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. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.</p> <table border="1"> <thead> <tr> <th>Type of Contaminant:</th><th>Air Speed:</th></tr> </thead> <tbody> <tr> <td>solvent, vapours, degreasing etc., evaporating from tank (in still air).</td><td>0.25-0.5 m/s (50-100 f/min)</td></tr> <tr> <td>aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)</td><td>0.5-1 m/s (100-200 f/min.)</td></tr> <tr> <td>direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)</td><td>1-2.5 m/s (200-500 f/min.)</td></tr> <tr> <td>grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).</td><td>2.5-10 m/s (500-2000 f/min.)</td></tr> </tbody> </table> <p>Within each range the appropriate value depends on:</p> <table border="1"> <thead> <tr> <th>Lower end of the range</th><th>Upper end of the range</th></tr> </thead> <tbody> <tr> <td>1: Room air currents minimal or favourable to capture</td><td>1: Disturbing room air currents</td></tr> <tr> <td>2: Contaminants of low toxicity or of nuisance value only.</td><td>2: Contaminants of high toxicity</td></tr> <tr> <td>3: Intermittent, low production.</td><td>3: High production, heavy use</td></tr> <tr> <td>4: Large hood or large air mass in motion</td><td>4: Small hood-local control only</td></tr> </tbody> </table> <p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p>	Type of Contaminant:	Air Speed:	solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min)	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)	Lower end of the range	Upper end of the range	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity	3: Intermittent, low production.	3: High production, heavy use	4: Large hood or large air mass in motion	4: Small hood-local control only
Type of Contaminant:	Air Speed:																				
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min)																				
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)																				
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)																				
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)																				
Lower end of the range	Upper end of the range																				
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents																				
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity																				
3: Intermittent, low production.	3: High production, heavy use																				
4: Large hood or large air mass in motion	4: Small hood-local control only																				
<p><b>Individual protection measures, such as personal protective equipment</b></p>																					
<p><b>Eye and face protection</b></p>	<ul style="list-style-type: none"> <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. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].</li> </ul>																				
<p><b>Skin protection</b></p>	<p>See Hand protection below</p>																				
<p><b>Hands/feet protection</b></p>	<ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <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> <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. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> <li>- frequency and duration of contact,</li> <li>- chemical resistance of glove material,</li> <li>- glove thickness and</li> <li>- dexterity</li> </ul> <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> <li>- When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>- When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>- Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.</li> <li>- Contaminated gloves should be replaced.</li> </ul> <p>As defined in ASTM F-739-96 in any application, gloves are rated as:</p> <ul style="list-style-type: none"> <li>- Excellent when breakthrough time &gt; 480 min</li> <li>- Good when breakthrough time &gt; 20 min</li> <li>- Fair when breakthrough time &lt; 20 min</li> <li>- Poor when glove material degrades</li> </ul> <p>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</p>																				

Continued...

## GulfSea Cylcare XP 5040

	<p>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> <ul style="list-style-type: none"> <li>· Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.</li> <li>· Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential</li> </ul> <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p>
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C apron.</li> <li>▶ Barrier cream.</li> <li>▶ Skin cleansing cream.</li> <li>▶ Eye wash unit.</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(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), 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 liquid; does not mix with water.		
Physical state	Liquid	Relative density (Water = 1)	0.9185 @15C
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 (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	19 @100C
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	230 (COC)	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	Immiscible	pH as a solution (1%)	Not Applicable
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 Time Equivalent (s/m3)	Not Available	Enclosed Space Ignition Deflagration Density (g/m3)	Not Available

**SECTION 10 Stability and reactivity**

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> <li>▶ Unstable in the presence of incompatible materials.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul>
Possibility of hazardous	See section 7

Continued...

reactions	
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

a) Acute Toxicity	Based on available data, the classification criteria are not met.
b) Skin Irritation/Corrosion	Based on available data, the classification criteria are not met.
c) Serious Eye Damage/Irritation	Based on available data, the classification criteria are not met.
d) Respiratory or Skin sensitisation	There is sufficient evidence to classify this material as sensitising to skin or the respiratory system
e) Mutagenicity	Based on available data, the classification criteria are not met.
f) Carcinogenicity	Based on available data, the classification criteria are not met.
g) Reproductivity	Based on available data, the classification criteria are not met.
h) STOT - Single Exposure	Based on available data, the classification criteria are not met.
i) STOT - Repeated Exposure	Based on available data, the classification criteria are not met.
j) Aspiration Hazard	Based on available data, the classification criteria are not met.

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. Inhalation of oil droplets or aerosols may cause discomfort and may produce chemical inflammation of the lungs.
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	Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or irritated skin should not be exposed to this material 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	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
Chronic	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.

GulfSea Cylcare XP 5040	TOXICITY	IRRITATION
	Not Available	Not Available
mineral oil	TOXICITY	IRRITATION
	Not Available	Not Available
paraffinic distillate, heavy, hydrotreated (severe)	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation (Rat) LC50: 2.18 mg/14h <sup>[2]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >5000 mg/kg <sup>[2]</sup>	
paraffinic distillate, heavy, solvent-dewaxed (severe)	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation (Rat) LC50: 2.18 mg/14h <sup>[2]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >5000 mg/kg <sup>[2]</sup>	
paraffinic distillate, light, hydrotreated (severe)	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation (Rat) LC50: 2.18 mg/14h <sup>[2]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >5000 mg/kg <sup>[2]</sup>	
paraffinic distillate, light, solvent-dewaxed (severe)	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Inhalation (Rat) LC50: 2.18 mg/14h <sup>[2]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >5000 mg/kg <sup>[2]</sup>	
calcium sulfonate	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>

	Inhalation (Rat) LC50: >1.9 mg/4h <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >5000 mg/kg <sup>[1]</sup>	
zinc bis(2-ethylhexyl)dithiophosphate	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >5000 mg/kg <sup>[1]</sup>	Eye: adverse effect observed (irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >2000<5000 mg/kg <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
dodecylphenol, branched	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (Rodent - rabbit): 100uL - Moderate
	Oral (Rat) LD50: <5000 mg/kg <sup>[1]</sup>	Eye: adverse effect observed (irritating) <sup>[1]</sup>
		Skin (Rodent - rabbit): 500uL - Severe
		Skin: adverse effect observed (irritating) <sup>[1]</sup>
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE)	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 cyclo-paraffins. 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 gut cell may play a major role in determining the proportion of hydrocarbon that becomes available to be deposited unchanged in peripheral tissues such as in the body fat stores or the liver.
PARAFFINIC DISTILLATE, LIGHT, HYDROTREATED (SEVERE)	* Q8 MSDS
CALCIUM SULFONATE	<p>The following information refers to contact allergens as a group and may not be specific to this product.</p> <p>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. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.</p> <p>Animal studies show that calcium sulfonates with a TBN greater than 300 are not skin sensitisers while the results in animals at a TBN (Total Base Number) of 300 exhibit a mixed skin sensitisation response. However, human repeat insult patch tests clearly show that high TBN overbased calcium sulfonates (TBN = 300) are not sensitisers and that low TBN calcium sulfonates do not cause sensitisation in a substantial number of persons at concentrations of 10% or lower within the definition of sensitisation under EU Regulation (EC) No. 1272/2008.</p> <p>The weight-of-evidence indicates that low TBN sodium and calcium sulfonates (TBN &lt; 300) are skin sensitisers with a specific concentration limit (SCL) of 10% and that high TBN sodium and calcium sulfonates (TBN = 300) are not skin sensitisers. Studies in guinea pigs show that low TBN benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs., para-, sodium salts (EC No. None; CAS No. None; TBN = 3) is a skin sensitizer while benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs., para-, sodium salts TBN = 448) is not a skin sensitizer. Studies in guinea pigs and human volunteers show that low TBN benzenesulfonic acid, 4-(mono-C15 -36 branched alkyl derivs., C24 rich) and benzenesulfonic acid, 4-octadecyl, calcium salts (EC 939-141-9; TBN = 13) are skin sensitisers. Numerous well-conducted, reliable, controlled human (HRIPT) studies with benzene, polypropene derivs., sulfonated, calcium salts (EC 616-278-7; TBN values ranging from 13 to 85), sulfonic acids, petroleum, calcium salts (EC 263-093-9; TBN = 30 to 100), and benzenesulfonic acid, 4-(mono-C15-36 branched alkyl derivs., C24 rich) and benzenesulfonic acid, 4-octadecyl, calcium salts (EC 939-141-6; TBN = 13) show that low TBN calcium sulfonates do not cause sensitisation in a substantial number of subjects at 10% and lower. High TBN calcium sulfonates, sulfonic acids, petroleum, calcium salts (EC 263-093-9; TBN = 375 and 400) do not cause skin sensitisation in guinea pigs. Results of guinea pigs studies at TBN = 300 are mixed; two studies of sulfonic acids, petroleum, calcium salts, (EC 263-093-9) report no skin sensitisation while one study of sulfonic acids, petroleum, calcium salts (EC 263-093-9) and one study of benzene, polypropene derivs., sulfonated, calcium salts (EC 616-278-7) report skin sensitisation. However, numerous well-conducted, reliable, controlled human (HRIPT) studies with benzene, polypropene derivs., sulfonated, calcium salts (EC 616-278-7; TBN = 300) and sulfonic acids, petroleum, calcium salts (EC 263-093-9; TBN = 300) also show that high TBN (TBN = 300) do not cause skin sensitisation. In accordance with EU CLP Regulation (EC) No. 1272/2008, classification is required for low TBN sodium and calcium sulfonates (TBN &lt; 300) with a specific concentration limit of 10% and classification is not required for high TBN calcium sulfonates (TBN = 300).</p>
ZINC BIS(2-ETHYLHEXYL)DITHIOPHOSPHATE	<p>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>Dithiophosphate alkyl esters is corrosive and toxic to the tissues on skin or oral exposure depending on its concentration. Symptoms included diarrhoea, skin and gastrointestinal irritation, lethargy, reduced food intake, staining about the nose and eye; occasionally, there was drooping of the eyelid, hair standing up, inco-ordination and salivation. Toxicity is reduced following inhalation (due to vapour pressure and high viscosity). It may produce reproductive, developmental and genetic toxicity on experimental animals, but no substantive data is available to establish effect on humans.</p>
DODECYLPHENOL, BRANCHED	<p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.</p> <p>for tetrapropenyl phenol and its derivatives.</p> <p>The chemical possesses properties indicating a potential hazard for human health (effects on fertility and developmental toxicity at doses that also cause maternal toxicity). Adequate screening-level data are available to characterize the human health hazard for the purposes of the OECD Cooperative Chemicals Assessment Programme</p> <p>SID Initial Assessment Profile (SIAM 22, 18-21 April 2006)</p> <p>for para-C12-alkylphenols (typically tetrapropenylphenol)</p> <p>Based on the toxicological findings presented in this review, para-C12-alkylphenols do not appear to meet the EU criteria for classification for acute toxicity by the oral and dermal routes of exposure, skin sensitisation, repeated dose toxicity or mutagenicity. No</p>



## GulfSea Cylcare XP 5040

information is available relating to acute toxicity via inhalation exposure, and carcinogenicity. The following characteristics do suggest that the substance warrants consideration for classification:

**Irritation:** para-C12-alkylphenols apparently meet the EU criteria for classification as a skin irritant and a severe eye irritant. Classification for corrosivity could be considered.

**Reproductive toxicity:** • Fertility: The treatment-related effects on fertility, with supporting pathological changes indicating site of action, appear to meet the EU criteria for classification. The observation that the fertility effects only occurred in the presence of general toxicity might need to be taken into account in deciding the most appropriate category. Overall, these findings suggest that category 2 classification for acute toxicity may be most appropriate, although arguments for category 3 might be considered.

**Developmental toxicity:** para-C12-alkylphenols caused craniofacial (cleft palate, 3 pups from 1 litter) and long bone malformations (bent long bones) in rats, but only at doses that caused some non-specific maternal toxicity (reduced body weight gain). These findings are not considered to be a secondary non-specific consequence of general toxicity and hence classification for developmental toxicity should be considered. A decision on whether category 2 or 3 is most appropriate may need expert consideration.

#### Classification for the environment

The substance is classified by the producers as 'dangerous to the environment (with the symbol N) with the following risk phrases:

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

This is based on the following data:

- Aquatic toxicity: 48-hour Daphnia EC50 <1 mg/L;
- log Kow >3 and measured fish bioconcentration factor of 823;
- Not readily biodegradable.

**Acute toxicity** data for the oral route of exposure are available for the rat only. LD50 values of 2,100 and 2,200 mg/kg were obtained in two separate studies. In one study, no deaths were observed with a single oral dose of 500 mg/kg but one rat at this dose level showed bloody urine that persisted for 48 hours post-dosing. A NOAEL for the effects of a single oral dose cannot be determined. Signs of toxicity observed in the acute oral toxicity studies included ruffled fur, diarrhoea, diuresis, retarded motion and ataxia.

**Dermal:** Two studies are available, both in rabbits. The findings indicate that deaths occur with doses above 3,160 mg/kg, and an LD50 of 15,000 mg/kg has been reported. Studies in rabbits indicate that tetrapropenylphenol is a severe skin irritant.

**Eye:** Studies in rabbits indicate that tetrapropenylphenol is an eye irritant capable of causing corneal opacity and iritis.

**Respiratory tract:** No data are available concerning respiratory tract irritancy. Given the evidence for skin and eye irritancy, it might be expected that inhaled tetrapropenylphenol would irritate the respiratory tract.

**Corrosivity:** Necrosis and eschar formation have been reported following dermal application of tetrapropenylphenol to rabbits. From the data available it is uncertain whether or not tetrapropenylphenol should be regarded as corrosive or as a severe skin irritant.

**Sensitisation:** Tetrapropenylphenol was not identified as a cause of skin sensitisation in two studies in guinea pigs

**Repeated dose toxicity:** Repeated dosing of tetrapropenylphenol to rats in oral studies, both dietary and gavage, produces effects in a number of organs including the reproductive organs in both sexes.

In the 28-day gavage study in rats, no toxicologically significant treatment-related effects were observed at 5 mg/kg/day. At the next higher dose of 20 mg/kg/day, adrenal cortical gland hypertrophy was observed in male rats. At 180 mg/kg/day and above, pathological changes and organ weight changes were observed in a number of organs, including prominent changes in the reproductive organs in both sexes.

In the dietary studies, effects on the testes were noted at 250 mg/kg/day (28-day study) and 106 mg/kg/day (90-day study). No treatment-related toxicological effects were seen in the dietary studies at 25 and 28 mg/kg/day respectively.

No treatment-related changes were reported in dogs at doses up to 4,000 ppm in the diet (estimated by the author to be equivalent to 180 mg/kg/day assuming a body weight of 11 kg and a daily food consumption of 0.5 kg). The absence of treatment-related changes in dogs suggests the existence of a species difference.

**Genotoxicity:** From the in vitro and in vivo studies available it can be concluded that tetrapropenylphenol is not mutagenic.

**Carcinogenicity:** There are no carcinogenicity studies available for tetrapropenylphenol. Given the lack of evidence for mutagenicity it is likely that if tetrapropenylphenol had the potential to cause cancer it would involve a threshold mechanism. It is uncertain whether or not the effects on the uterus and the endometrial gland cysts in the one-generation fertility study at the top dose of 125 mg/kg/day indicate the possibility of uterine cancer at these sites following prolonged exposure.

**Reproductive toxicity:** Tetrapropenylphenol has an adverse effect on fertility in rats, causing a marked reduction in fertility at 125 mg/kg/day. At doses of 25 mg/kg/day and above tetrapropenylphenol causes a reduction in mean pup weight and pathological changes in the reproductive organs of both sexes. The reduction in fertility and effects on reproductive organs occurred at doses that also caused other toxic effects, including reduced bodyweight gain and food consumption and changes in the adrenals, kidneys and liver. However, this toxicity was not considered to be particularly severe such that the adverse effects on fertility could have been a secondary non-specific consequence of general toxicity. The NOAEL for reproductive effects is 5 mg/kg/day.

**Developmental toxicity:** Tetrapropenylphenol is also a developmental toxicant in rats, causing teratogenic effects as shown by cleft palate and ectodactyly (reduced number of digits) as well as a general increase in the total number of skeletal malformations at 300 mg/kg/day. These manifestations of developmental toxicity occurred in the presence of overt maternal toxicity, indicated by a significant reduction in body weight gain.

Environmental risk evaluation report: para-C12-alkylphenols (dodecylphenol and tetrapropenylphenol): Environment Agency UK

#### MINERAL OIL & PARAFFINIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE) & PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE) & PARAFFINIC DISTILLATE, LIGHT, HYDROTREATED (SEVERE) & PARAFFINIC DISTILLATE, LIGHT, SOLVENT-DEWAXED (SEVERE)

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:

- 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. Numerous tests have shown that a lubricating base oil is mutagenic and carcinogenic potential correlates with its 3-7 ring polycyclic aromatic compound (PAC) content, and the level of DMSO extractables (e.g. IP346 assay), both characteristics that are directly related to the degree/conditions of processing.

#### PARAFFINIC DISTILLATE, HEAVY, HYDROTREATED (SEVERE) & PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE) & PARAFFINIC DISTILLATE, LIGHT, HYDROTREATED (SEVERE) & PARAFFINIC DISTILLATE, LIGHT, SOLVENT-DEWAXED (SEVERE)

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. The effects of repeated exposure vary by species; in animals, effects to the testes and lung have been observed, as well as the formation of granulomas. In animals, these substances have not been found to cause reproductive toxicity or significant increases in birth defects. They are also not considered to cause cancer, mutations or chromosome aberrations.

The substance is classified by IARC as Group 3:

**NOT** classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

#### PARAFFINIC DISTILLATE, HEAVY, SOLVENT-DEWAXED (SEVERE) & PARAFFINIC DISTILLATE, LIGHT, HYDROTREATED (SEVERE) & PARAFFINIC DISTILLATE, LIGHT, SOLVENT-DEWAXED (SEVERE) &

No significant acute toxicological data identified in literature search.

ZINC BIS(2-ETHYLHEXYL)DITHIOPHOSPHATE & DODECYLPHENOL, BRANCHED

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

Other information  
Not Available

SECTION 12 Ecological information

Toxicity

GulfSea Cylcare XP 5040	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
paraffinic distillate, heavy, hydrotreated (severe)	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	>1000mg/l	1
	ErC50	72h	Algae or other aquatic plants	>1000mg/l	1
	EC50	96h	Algae or other aquatic plants	>1000mg/l	1
	NOEC(ECx)	504h	Crustacea	>1mg/l	1
paraffinic distillate, heavy, solvent-dewaxed (severe)	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	>1000mg/l	1
	ErC50	72h	Algae or other aquatic plants	>1000mg/l	1
	EC50	96h	Algae or other aquatic plants	>1000mg/l	1
	NOEC(ECx)	504h	Crustacea	>1mg/l	1
paraffinic distillate, light, hydrotreated (severe)	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	>1000mg/l	1
	NOEC(ECx)	504h	Crustacea	>1mg/l	1
paraffinic distillate, light, solvent-dewaxed (severe)	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	>1000mg/l	1
	NOEC(ECx)	504h	Crustacea	>1mg/l	1
calcium sulfonate	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	72h	Algae or other aquatic plants	1000mg/l	2
zinc bis(2-ethylhexyl)dithiophosphate	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	11.5mg/l	1
	EC50	96h	Algae or other aquatic plants	1-5mg/l	1
	NOEC(ECx)	48h	Crustacea	<1mg/l	1
	LC50	96h	Fish	46mg/l	2
dodecylphenol, branched	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	0.037mg/l	2
	EC50	72h	Algae or other aquatic plants	0.15mg/l	2
	NOEC(ECx)	504h	Crustacea	0.004mg/l	2
	LC50	96h	Fish	3.2mg/l	2

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

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
dodecylphenol, branched	HIGH	HIGH
Bioaccumulative potential		
Ingredient	Bioaccumulation	
dodecylphenol, branched	MEDIUM (BCF = 850)	
Mobility in soil		
Ingredient	Mobility	
dodecylphenol, branched	LOW (Log KOC = 382000)	

**Other adverse effects**  
One or more ingredients within this SDS has the potential of causing ozone depletion and/or photochemical ozone creation.

SECTION 13 Disposal considerations

Waste treatment methods	
Product / Packaging disposal	<ul style="list-style-type: none"><li>▶ <b>DO NOT</b> allow wash water from cleaning or process equipment to enter drains.</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 Authority for disposal.</li><li>▶ Bury or incinerate residue at an approved site.</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 (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. Maritime transport in bulk according to IMO instruments  
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
mineral oil	Not Available
paraffinic distillate, heavy, hydrotreated (severe)	Not Available
paraffinic distillate, heavy, solvent-dewaxed (severe)	Not Available
paraffinic distillate, light, hydrotreated (severe)	Not Available
paraffinic distillate, light, solvent-dewaxed (severe)	Not Available
calcium sulfonate	Not Available
zinc bis(2-ethylhexyl)dithiophosphate	Not Available
dodecylphenol, branched	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
mineral oil	Not Available
paraffinic distillate, heavy, hydrotreated (severe)	Not Available
paraffinic distillate, heavy, solvent-dewaxed (severe)	Not Available
paraffinic distillate, light, hydrotreated (severe)	Not Available
paraffinic distillate, light, solvent-dewaxed (severe)	Not Available
calcium sulfonate	Not Available
zinc bis(2-ethylhexyl)dithiophosphate	Not Available

Product name	Ship Type
dodecylphenol, branched	Not Available

SECTION 15 Regulatory information

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

<b>mineral oil is found on the following regulatory lists</b>
Chemical Footprint Project - Chemicals of High Concern List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 1: Carcinogenic to humans
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
Singapore Permissible Exposure Limits of Toxic Substances
<b>paraffinic distillate, heavy, hydrotreated (severe) is found on the following regulatory lists</b>
Chemical Footprint Project - Chemicals of High Concern List
Singapore Permissible Exposure Limits of Toxic Substances
<b>paraffinic distillate, heavy, solvent-dewaxed (severe) is found on the following regulatory lists</b>
Chemical Footprint Project - Chemicals of High Concern List
Singapore Permissible Exposure Limits of Toxic Substances
<b>paraffinic distillate, light, hydrotreated (severe) is found on the following regulatory lists</b>
Chemical Footprint Project - Chemicals of High Concern List
Singapore Permissible Exposure Limits of Toxic Substances
<b>paraffinic distillate, light, solvent-dewaxed (severe) is found on the following regulatory lists</b>
Chemical Footprint Project - Chemicals of High Concern List
Singapore Permissible Exposure Limits of Toxic Substances
<b>calcium sulfonate is found on the following regulatory lists</b>
Not Applicable
<b>zinc bis(2-ethylhexyl)dithiophosphate is found on the following regulatory lists</b>
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
Singapore Permissible Exposure Limits of Toxic Substances
<b>dodecylphenol, branched is found on the following regulatory lists</b>
Chemical Footprint Project - Chemicals of High Concern List

Additional Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (mineral oil; calcium sulfonate)
Canada - DSL	No (mineral oil)
Canada - NDSL	No (mineral oil; paraffinic distillate, heavy, hydrotreated (severe); paraffinic distillate, heavy, solvent-dewaxed (severe); paraffinic distillate, light, hydrotreated (severe); paraffinic distillate, light, solvent-dewaxed (severe); calcium sulfonate; zinc bis(2-ethylhexyl)dithiophosphate)
China - IECSC	No (mineral oil; calcium sulfonate)
Europe - EINEC / ELINCS / NLP	No (mineral oil; calcium sulfonate)
Japan - ENCS	No (calcium sulfonate)
Korea - KECI	No (mineral oil; calcium sulfonate)
New Zealand - NZIoC	No (mineral oil; calcium sulfonate)
Philippines - PICCS	No (mineral oil; calcium sulfonate)
USA - TSCA	TSCA Inventory 'Active' substance(s) (paraffinic distillate, heavy, hydrotreated (severe); paraffinic distillate, heavy, solvent-dewaxed (severe); paraffinic distillate, light, hydrotreated (severe); paraffinic distillate, light, solvent-dewaxed (severe); calcium sulfonate; zinc bis(2-ethylhexyl)dithiophosphate; dodecylphenol, branched); No (mineral oil)
Taiwan - TCSI	No (mineral oil; calcium sulfonate)
Mexico - INSQ	No (mineral oil; paraffinic distillate, light, hydrotreated (severe); paraffinic distillate, light, solvent-dewaxed (severe); calcium sulfonate; zinc bis(2-ethylhexyl)dithiophosphate; dodecylphenol, branched)
Vietnam - NCI	No (mineral oil)
Russia - FBEPH	No (mineral oil; paraffinic distillate, light, solvent-dewaxed (severe); calcium sulfonate)
<b>Legend:</b>	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	24/07/2023
Initial Date	29/05/2023

Other information

Ingredients with multiple cas numbers

Continued...

Name	CAS No
dodecylphenol, branched	121158-58-5, 27193-86-8, 210555-94-5., 104-43-8

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.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication and may be subject to modification from time to time. It is the user's responsibility to verify that this Safety Data Sheet is current prior to use or application. The information given is designed only as a guidance for safe handling, use, application, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.