

## DEOX R44 Thick Film Lubricant with PTFE (Aerosol)

### Chemtools Pty Ltd

Chemwatch: 5597-09

Version No: 3.1

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

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

Chemwatch Hazard Alert Code: 4

Issue

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S.GHS.AUS/NZ.EN.E

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

#### Product Identifier

Product name	DEOX R44 Thick Film Lubricant with PTFE (Aerosol)
Chemical Name	Not Applicable
Synonyms	Not Available
Proper shipping name	AEROSOLS
Chemical formula	Not Applicable
Other means of identification	Not Available

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

Relevant identified uses	Application is by spray atomisation from a hand held aerosol pack Use according to manufacturer's directions.
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#### Details of the manufacturer or supplier of the safety data sheet

Registered company	Chemtools Pty Ltd	Chemtools Pty Ltd
name Address	Unit 2, 14 - 16 Lee Holm Road St Marys NSW 2760 Australia	15/62 Factory Road Belfast Christchurch 8051 New
Telephone	1300 738 250, +61 2 9833 9766	Zealand +64 9 940 2745
Fax	+61 2 9623 3670	+61 2 9623 3670
Website	<a href="http://www.chemtools.com.au">www.chemtools.com.au</a>	<a href="http://www.chemtools.co.nz">www.chemtools.co.nz</a>
Email	<a href="mailto:sales@chemtools.com.au">sales@chemtools.com.au</a>	<a href="mailto:sales@chemtools.com.au">sales@chemtools.com.au</a>

#### Emergency telephone number

Association / Organisation	Poisons Information	National Poisons
Emergency telephone numbers	Centre	Centre
Other emergency telephone numbers	13 11 26 Not Available	0800 764 766 Not Available

### SECTION 2 Hazards identification

#### Classification of the substance or mixture

**HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.**

Poisons Schedule	Not Applicable
Classification [1]	Aerosols Category 1, Aspiration Hazard Category 1, Serious Eye Damage/Eye Irritation Category 1, Hazardous to the Aquatic Environment Acute Hazard Category 2
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

## Label elements

Hazard pictogram(s)	
Signal word	<b>Danger</b>

## Hazard statement(s)

AUH044	Risk of explosion if heated under confinement.
H222+H22	Extremely flammable aerosol. Pressurized container: may burst if heated.
9 H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H401	Toxic to aquatic life.

## Precautionary statement(s)

Prevention	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No
	P211	smoking. Do not spray on an open flame or other ignition source.
	P251	Do not pierce or burn, even after use.
	P280	Wear protective gloves, protective clothing, eye protection and face protection.
	P273	Avoid release to the environment.

## Precautionary statement(s)

Response	P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.
	P331	Do NOT induce vomiting.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## Precautionary statement(s)

Storage	P405	Store locked up.
	P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

## Precautionary statement(s)

Disposal	P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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**Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Classified as Dangerous Goods for transport purposes.**

## NFPA 704 diamond



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

Classification [1]	Aerosols Category 1, Aspiration Hazard Category 1, Serious Eye Damage/Eye Irritation Category 1
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI
Determined by Chemwatch using GHS/HSNO criteria	2.1.2A, 6.1E (aspiration), 8.3A

## Label elements

Hazard pictogram(s)	
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Signal word **Danger**

## Hazard statement(s)

<b>H222+H22</b>	Extremely flammable aerosol. Pressurized container: may burst if
<b>9 H304</b>	heated. May be fatal if swallowed and enters airways.
<b>H318</b>	Causes serious eye damage.

## Supplementary Phrases

Not Applicable

## Precautionary statement(s) Prevention

<b>P210</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No
<b>P211</b>	smoking. Do not spray on an open flame or other ignition source.
<b>P251</b>	Do not pierce or burn, even after use.
<b>P280</b>	Wear protective gloves, protective clothing, eye protection and face protection.

## Precautionary statement(s) Response

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## Precautionary statement(s) Disposal

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## SECTION 3 Composition / information on ingredients

### Substances

See section below for composition of Mixtures

### Mixtures

CAS No	%[weight]	Name
8042-47-5	>60	<u>white mineral oil</u>
68439-50-9	<5	<u>alcohols C12-14 ethoxylated</u>
124-38-9	<5	<u>carbon dioxide</u>
Not Available	Balance	ingredients determined not to be hazardous
<b>Legend:</b> 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

<b>measures</b>	If aerosols come in contact with the eyes:
<b>Eye Contact</b>	<ul style="list-style-type: none"> <li>Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes 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>Transport to hospital or doctor without delay</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel</li> </ul>
<b>Skin Contact</b>	For thermal burns: <ul style="list-style-type: none"> <li>Decontaminate area around burn</li> <li>Consider the use of cold packs and topical antibiotics</li> </ul> For first-degree burns (affecting top layer of skin) <ul style="list-style-type: none"> <li>Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides</li> </ul>

Continued...

- Use compresses if running water is not available.
- Cover with sterile non-adhesive bandage or clean cloth.
- Do NOT apply butter or ointments; this may cause infection.
- Give over-the counter pain relievers if pain increases or swelling, redness, fever occur.
- For second-degree burns (affecting top two layers of skin)
- Cool the burn by immerse in cold running water for 10-15 minutes.
- Use compresses if running water is not available.
- Do NOT apply ice as this may lower body temperature and cause further damage.
- Do NOT break blisters or apply butter or ointments; this may cause infection.
- Protect burn by cover loosely with sterile, nonstick bandage and secure in place with gauze or tape.
- To prevent shock: (unless the person has a head, neck, or leg injury, or it would cause discomfort):
- Lay the person flat.
- Elevate feet about 12 inches.
- Elevate burn area above heart level, if possible.
- Cover the person with coat or blanket.
- Seek medical assistance.
- For third-degree burns
- Seek immediate medical or emergency assistance.
- In the mean time:
- Protect burn area cover loosely with sterile, nonstick bandage or, for large areas, a sheet or other material that will not leave lint in wound.
- Separate burned toes and fingers with dry, sterile dressings.
- Do not soak burn in water or apply ointments or butter; this may cause infection.
- To prevent shock see above.
- For an airway burn, do not place pillow under the person's head when the person is lying down. This can close the airway.
- Have a person with a facial burn sit up.
- Check pulse and breathing to monitor for shock until emergency help arrives.
- If solids or aerosol mists are deposited upon the skin:
- Flush skin and hair with running water (and soap if available).
- Remove any adhering solids with industrial skin cleansing cream.
- DO NOT use solvents.
- Seek medical attention in the event of irritation

### Inhalation

- If aerosols, fumes, or combustion products are inhaled:
- Remove to fresh air.
  - Lay the patient down. Keep warm and rested.
  - Prostheses such as false teeth, which may block the airway, should be removed, where possible, prior to initiating first aid procedures.
  - If breathing is shallow or has stopped, ensure a clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
  - Transport to hospital, or doctor.

### Ingestion

Not considered a normal route of entry

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

Treat symptomatically.

## SECTION 5 Firefighting measures

### Extinguishing media

#### SMALL FIRE:

Water spray, dry chemical or CO2

#### LARGE FIRE:

Water spray or fog.

### 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

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course. If safe, switch off electrical equipment until vapour fire hazard removed.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- **DO NOT** approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

Continued...

<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>• Equipment should be thoroughly decontaminated after use</li> <li>• Liquid and vapour are highly flammable.</li> <li>• Severe fire hazard when exposed to heat or flame.</li> <li>• Vapour forms an explosive mixture with air.</li> <li>• Severe explosion hazard, in the form of vapour, when exposed to flame or spark.</li> <li>• Vapour may travel a considerable distance to the source of ignition.</li> <li>• Heating may cause expansion or decomposition with violent container rupture.</li> <li>• Aerosol cans may explode on exposure to naked flames.</li> <li>• Rupturing containers may rocket and scatter burning materials.</li> <li>• Hazards may not be restricted to pressure effects.</li> <li>• May emit acrid, poisonous or corrosive fumes.</li> <li>• On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include: carbon dioxide (CO<sub>2</sub>) other pyrolysis products typical of burning organic material.</p> <p><b>CARE:</b> Water in contact with hot liquid may cause foaming and a steam explosion with a wide scattering of hot oil and possible severe burns. Foaming may cause an overflow of containers and may result in possible fire.</p>
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## SECTION 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

See section 8

### Environmental precautions

See section 12

### Methods and material for containment and cleaning up

<b>Minor Spills</b>	<ul style="list-style-type: none"> <li>• Clean up all spills immediately.</li> <li>• Avoid breathing vapors and contact with skin and eyes.</li> <li>• Wear protective clothing, impervious gloves, and safety glasses.</li> <li>• Shut off all possible sources of ignition and increase ventilation.</li> <li>• Wipe up.</li> <li>• If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.</li> <li>• Undamaged cans should be gathered and stowed safely.</li> </ul>
<b>Minor Spills</b>	<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>• May be violently or explosively reactive.</li> <li>• Wear breathing apparatus plus protective gloves.</li> <li>• Prevent, by any means available, spillage from entering drains or water courses</li> <li>• No smoking, naked lights or ignition sources.</li> <li>• Increase ventilation.</li> <li>• Stop leak if safe to do so.</li> <li>• Water spray or fog may be used to disperse / absorb vapour.</li> <li>• Absorb or cover spill with sand, earth, inert materials or vermiculite.</li> <li>• If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.</li> <li>• Undamaged cans should be gathered and stowed safely.</li> <li>• Collect residues and seal in labelled drums for disposal</li> </ul>

## SECTION 7 Handling and storage

### Precautions for safe handling

<b>Safe handling</b>	<ul style="list-style-type: none"> <li>• Avoid all personal contact, including inhalation.</li> <li>• Wear protective clothing when risk of exposure occurs.</li> <li>• Use in a well-ventilated area.</li> <li>• Prevent concentration in hollows and sumps.</li> <li>• <b>DO NOT enter confined spaces until atmosphere has been checked.</b> Avoid smoking, naked lights or ignition sources.</li> <li>• Avoid contact with incompatible materials.</li> <li>• <b>When handling, DO NOT eat, drink or smoke.</b></li> <li>• <b>DO NOT incinerate or puncture aerosol cans.</b></li> </ul> <p>For thermal burns:  <ul style="list-style-type: none"> <li>• Decontaminate <b>DO NOT</b> around but on humans, exposed food or food utensils. Avoid physical damage to containers.</li> <li>• Consider the use of cold packs and topical antibiotics.</li> <li>• Always wash hands with soap and water after handling.</li> <li>• Work clothes should be laundered separately.</li> <li>• Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides</li> <li>• Use good occupational work practice.</li> </ul> </p>
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	<ul style="list-style-type: none"> <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 are maintained.</li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can</li> <li>Store in original containers in approved flammable liquid storage area.</li> <li><b>DO NOT store in pits, depressions, basements or areas where vapours may be trapped.</b></li> <li>No smoking, naked lights, heat or ignition sources.</li> <li>Keep containers securely sealed. Contents under pressure.</li> <li>Store away from incompatible materials.</li> <li>Store in a cool, dry, well ventilated area.</li> <li>Avoid storage at temperatures higher than 40 deg C.</li> <li>Store in an upright position.</li> <li>Protect containers against physical damage.</li> <li>Check regularly for spills and leaks.</li> <li>Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>

## Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>Aerosol dispenser</li> <li>Check that containers are clearly labelled</li> </ul>
<b>Storage incompatibility</b>	<ul style="list-style-type: none"> <li>Compressed gases may contain a large amount of kinetic energy over and above that potentially available from the energy of reaction produced by the gas in chemical reaction with other substances</li> <li>Avoid reaction with oxidising agents</li> </ul>



X— Must not be stored together

O— May be stored together with specific preventions

+— May be stored together

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

## SECTION 8 Exposure controls / personal protection

### Control parameters

#### Occupational Exposure Limits (OEL)

#### INGREDIENT DATA

Source		Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	white mineral oil (petroleum)	Oil mist, refined mineral	5 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	white mineral oil (petroleum)	Oil mist, mineral	5 mg/m3	10 mg/m3	Not Available	(om) - Sampled by a method that does not collect vapour
Australia Exposure Standards	carbon dioxide	Carbon dioxide	5000 ppm / 9000 mg/m3	54000 mg/m3 / 30000 ppm	Not Available	Not Available
Australia Exposure Standards	carbon dioxide	Carbon dioxide in coal mines	12500 ppm / 22500 mg/m3	54000 mg/m3 / 30000 ppm	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	carbon dioxide	Carbon dioxide	5000 ppm / 9000 mg/m3	54000 mg/m3 / 30000 ppm	Not Available	Not Available

#### Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
white mineral oil	140 mg/m3	1,500 mg/m3	8,900 mg/m3

Ingredient	Original IDLH	Revised IDLH
white mineral oil	2500 mg/m3	Not Available
alcohols C12-14 ethoxylated	Not available	Not Available
carbon dioxide	40000 ppm	Not Available

#### Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
alcohols	C12-14	E≤ 0.1 ppm
ethoxylated <b>Notes:</b>	<i>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.</i>	

## 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.</p> <p>The basic types of engineering controls are:</p> <p>Process controls 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 conditions. If the risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.</p> <p>Provide adequate ventilation in warehouse or closed storage areas.</p> <p>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> <p>Type of Contaminant:</p> <table border="1"> <tr> <td>aerosols, (released at low velocity into zone of active generation)</td> <td></td> </tr> <tr> <td>direct spray, spray painting in shallow booths, gas discharge (active generation in zone of rapid air motion)</td> <td></td> </tr> </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>	aerosols, (released at low velocity into zone of active generation)		direct spray, spray painting in shallow booths, gas discharge (active generation in zone of rapid air motion)		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
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<p><b>Individual protection measures, such as personal protective equipment</b></p>															
<p><b>Eye and face protection</b></p>	<p>No special equipment for minor exposure i.e. when handling small quantities.</p> <p><b>OTHERWISE:</b> For potentially moderate or heavy exposures:</p> <ul style="list-style-type: none"> <li>Safety glasses with side shields.</li> <li><b>NOTE:</b> Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.</li> </ul>														
<p><b>Skin protection</b></p>	<p>See Hand protection below</p>														
<p><b>Hands/feet protection</b></p>	<p>No special equipment needed when handling small quantities.</p> <p><b>OTHERWISE:</b></p> <ul style="list-style-type: none"> <li>For potentially moderate exposures:</li> <li>Wear general protective gloves, eg. light weight rubber gloves.</li> <li>For potentially heavy exposures:</li> <li>Wear chemical protective gloves, eg. PVC. and safety footwear.</li> </ul>														
<p><b>Body protection</b></p>	<p>See other protection below</p>														
<p><b>Other protection</b></p>	<p>No special equipment needed when handling small quantities.</p> <p><b>OTHERWISE:</b></p> <ul style="list-style-type: none"> <li>Overalls.</li> <li>Skin cleansing cream.</li> <li>Eyewash unit.</li> <li>Do not spray on hot surfaces.</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)

Aerosols, in common with most vapours/ mists, should never be used in confined spaces without adequate ventilation. Aerosols, containing agents designed to enhance or mask smell, have triggered allergic reactions in predisposed individuals.

## SECTION 9 Physical and chemical properties

### Information on basic physical and chemical properties

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

## SECTION 10 Stability and reactivity

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	<ul style="list-style-type: none"> <li>Elevated temperatures.</li> <li>Presence of open flame.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5



## SECTION 11 Toxicological information

### Information on toxicological effects

<b>Inhaled</b>	<p>There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>The vapour is discomforting</p> <p><b>WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.</b></p> <p>Inhalation of oil droplets or aerosols may cause discomfort and may produce chemical inflammation of the lungs.</p> <p>Spray mist may produce discomfort</p>
<b>Ingestion</b>	<p>Not normally a hazard due to the physical form of the product.</p> <p>Considered an unlikely route of entry in commercial/industrial environments</p> <p>Accidental ingestion of the material may be damaging to the health of the individual.</p>
<b>Skin Contact</b>	<p>There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.</p> <p>Spray mist may produce discomfort</p> <p>The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives.</p> <p>Irritation and skin reactions are possible with sensitive skin</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>The material may accentuate any pre-existing dermatitis condition</p> <p>Entry into the bloodstream, through, for example, cuts, abrasions, or lesions, may produce systemic injury with harmful effects.</p> <p>Examine the skin before the use of the material and ensure that any external damage is suitably protected.</p>
<b>Eye</b>	<p>If applied to the eyes, this material causes severe eye damage. Not considered to be a risk because of the extreme volatility of the gas.</p>
<b>Chronic</b>	<p>There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.</p> <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>There is some evidence from animal testing that exposure to this material may result in reduced fertility.</p> <p>There is some evidence from animal testing that exposure to this material may result in toxic effects to the unborn baby.</p> <p>Main route of exposure to the gas in the workplace is by inhalation.</p> <p>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.</p>

<b>DEOX R44 Thick Film Lubricant with PTFE (Aerosol)</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>white mineral oil (petroleum)</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Dermal (rabbit) LD50: >2000 mg/kg	Eye: no adverse effect observed (not irritating)
	Inhalation(Rat) LC50: >4.5 mg/l4h	Skin: adverse effect observed (irritating)[1]
	Oral (Rat) LD50: >5000 mg/kg[2]	Skin: no adverse effect observed (not irritating)
<b>alcohols C12-14 ethoxylated</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	dermal (rat) LD50: >=2000 mg/kg	Eye (rabbit): irritant *
	Oral (Rat) LD50: >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)
		Skin (rabbit): irritant *
		Skin: no adverse effect observed (not irritating)
<b>carbon dioxide</b>	<b>TOXICITY</b>	<b>IRRITATION</b>
	Not Available	Not Available
<b>Legend:</b>	<p>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</p>	

<b>WHITE MINERAL OIL (PETROLEUM)</b>	<p>Oral (rat) TCLo: 92000 mg/kg/92D-Cont. Generally the toxicity and irritation is of low order. White oils and highly/solvent refined oils have not shown the long term risk of skin cancer that follows persistent skin contamination with some other mineral oils, due in all probability to refining that produces low content of both polyaromatics (PAH) and benz-alpha-pyrenes (BaP)</p> <p>The substance is classified by IARC as Group 3:</p> <p><b>NOT</b> classifiable as to its carcinogenicity to humans.</p> <p>Evidence of carcinogenicity may be inadequate or limited in animal testing.</p> <p>For highly and severely refined distillate base oils:</p> <p>In animal studies, the acute, oral, semilethal dose is &gt;5g/kg body weight and the semilethal dose by skin contact is &gt;2g/kg body weight. The semilethal concentration for inhalation is 2.18 to &gt;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</p>
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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 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 & and 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's mutagenic and carcinogenic potential correlates with its 3-7 ring polycyclic aromatic compound (PAC) content, and the level of DMSO extractable (e.g. IP346 assay), both characteristics that are directly related to the degree/conditions of processing.

## ALCOHOLS C12-14 ETHOXYLATED

\* BASF Canada \*\* [Henkel CCINFO 1450373]

Humans have regular contact with alcohol ethoxylates through a variety of industrial and consumer products such as soaps, detergents, and other cleaning products. Exposure to these chemicals can occur through swallowing, inhalation, or contact with the skin or eyes. Studies of acute toxicity show that relatively high volumes would have to occur to produce any toxic response.

No death due to poisoning with alcohol ethoxylates has ever been reported. Studies show that alcohol ethoxylates have low toxicity through swallowing and skin contact.

Animal studies show these chemicals may produce gastrointestinal irritation, stomach ulcers, hair standing up, diarrhea, and lethargy. Slight to severe irritation occurred when undiluted alcohol ethoxylates were applied to the skin and eyes of animals. These chemicals show no indication of genetic toxicity or potential to cause mutations and cancers. Toxicity is thought to be substantially lower than that of nonylphenol ethoxylates.

Some of the oxidation products of this group of substances may have sensitizing properties.

As they cause less irritation, nonionic surfactants are often preferred to ionic surfactants in topical products. However, their tendency to auto-oxidise also increases their irritation. Due to their irritating effect, it is difficult to diagnose allergic contact dermatitis (ACD) by patch testing.

Both laboratory and animal testing have shown that there is no evidence that alcohol ethoxylates (AEs) cause genetic damage, mutations, or cancer. No adverse reproductive or developmental effects were observed.

Tri-ethylene glycol ethers undergo enzymatic oxidation to toxic alkoxy acids. They may irritate the skin and the eyes. At high oral doses, they may cause depressed reflexes, flaccid muscle tone, breathing difficulty and coma. Death may result in experimental animals. However, repeated exposure may cause dose-dependent damage to the kidneys as well as reproductive and developmental defects.

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

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.

Acute Toxicity	✗	Carcinogenicity	✗
Skin	✗	Reproductivity	✗
Irritation/Corrosion	✗	STOT - Single Exposure	✗
Serious Eye Damage/Irritation	✗	STOT - Repeated Exposure	✗
Respiratory or Skin sensitisation	✗	Aspiration Hazard	✓
Mutagenicity	✗		

**Legend:** ✗ - Data either not available or does not fill the criteria for classification  
 ✓ - Data available to make classification

## SECTION 12 Ecological information

### Toxicity

DEOX R44 Thick Film Lubricant with PTFE (Aerosol)	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
white mineral oil (petroleum)	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	>10000mg/L	2

Continued...

	Endpoint	Test Duration (hr)	Species	Value	Source
alcohols C12-14 ethoxylated	EC0(ECx)	72h	Algae or other aquatic	0.035mg/	2
	LC50	96h	plants Fish	11.1mg/l	2
	EC50	72h	Algae or other aquatic	0.13mg/l	2
	EC50	48h	plants Crustacea	0.53mg/l	2
carbon dioxide	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	35mg/	1
<b>Legend</b>	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				

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

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

## Persistence and degradability

Ingredient	Persistence:	Persistence: Air
carbon dioxide	<b>Water/Soil</b> LOW	LOW

## Bioaccumulative potential

Ingredient	Bioaccumulation
carbon dioxide	LOW (LogKOW = 0.83)

## Mobility in soil

Ingredient	Mobility
carbon dioxide	HIGH (KOC = 1.498)

## SECTION 13 Disposal considerations

### Waste treatment methods

<b>Product/Packing disposal</b>	<ul style="list-style-type: none"> <li>DO NOT 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>Consult State Land Waste Management Authority for disposal.</li> <li>Discharge contents of damaged aerosol cans at an approved site.</li> <li>Allow small quantities to evaporate.</li> <li>DO NOT incinerate or puncture aerosol cans.</li> <li>Bury residues and emptied aerosol cans at an approved site</li> </ul>
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## 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.

DO NOT deposit the hazardous substance into or onto a landfill or a sewage facility.

Burning the hazardous substance must happen under controlled conditions with no person or place exposed to


(1) a blast overpressure of more than 9 kPa; or

(2) an unsafe level of heat radiation.

The disposed hazardous substance must not come into contact with class 1 or 5 substances.

## SECTION 14 Transport information

## Labels Required

	
<b>Marine Pollutant</b>	NO
<b>HAZCHEM</b>	Not Applicable

## Land transport (ADG)

<b>UN number or ID number</b>	1950
<b>UN proper shipping name</b>	AEROSOLS
<b>Transport hazard class(es)</b>	Class 2.1 Subsidiary risk Not Applicable
<b>Packing group</b>	Not Applicable
<b>Environmental hazard</b>	Not Applicable
<b>Special precautions for user</b>	Special provisions 63 190 277 327 344 381 Limited quantity 1000ml

## Land transport (UN)

<b>UN number or ID number</b>	1950
<b>UN proper shipping name</b>	AEROSOLS
<b>Transport hazard class(es)</b>	Class 2.1 Subsidiary risk Not Applicable
<b>Packing group</b>	Not Applicable
<b>Environmental hazard</b>	Not Applicable
<b>Special precautions for user</b>	Special provisions 63; 190; 277; 327; 344; 381 Limited quantity 1000ml

## Air transport (ICAO-IATA / DGR)

<b>UN number</b>	1950	
<b>UN proper shipping name</b>	Aerosols, flammable	
<b>Transport hazard class(es)</b>	ICAO/IATA Class	2.1
	ICAO / IATA Subrisk	Not Applicable
	ERG Code	10L
<b>Packing group</b>	Not Applicable	
<b>Environmental hazard</b>	Not Applicable	
<b>Special precautions for user</b>	Special provisions	A145 A167 A802
	Cargo Only Packing Instructions	203
	Cargo Only Maximum Qty / Pack	150 kg
	Passenger and Cargo Packing Instructions	203
	Passenger and Cargo Maximum Qty / Pack	75 kg
	Passenger and Cargo Limited Quantity Packing Instructions	Y203
	Passenger and Cargo Limited Maximum Qty / Pack	30 kg G

## Sea transport (IMDG-Code / GGVSee)

<b>UN number</b>	1950
<b>UN proper shipping name</b>	AEROSOLS

<b>Transport hazard class(es)</b>	IMDG Class	2.1
	IMDG Subrisk	Not Applicable
<b>Packing group</b>	Not Applicable	
<b>Environmental hazard</b>	Not Applicable	
<b>Special precautions for user</b>	EMS Number	F-D, S-
	Special provisions	63 190 277 327 344 381 959
	Limited Quantities	1000 ml

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

Not Applicable

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

Product name	Group
white mineral oil	Not Available
(petroleum) alcohols C12-14	Not Available
ethoxylated carbon dioxide	Not Available

## Transport in bulk in accordance with the IGC Code

Product name	Ship Type
white mineral oil	Not Available
(petroleum) alcohols C12-14	Not Available
ethoxylated carbon dioxide	Not Available

## SECTION 15 Regulatory information

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

HSR Number	Group Standard
HSR002515	Aerosols Flammable Group Standard 2020

#### white mineral oil (petroleum) is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)  
 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

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)

#### alcohols C12-14 ethoxylated is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)  
 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  
 New Zealand Inventory of Chemicals (NZIoC)

#### carbon dioxide is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)  
 FEI Equine Prohibited substances list - controlled medication  
 FEI Equine Prohibited substances List EPSL  
 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)  
 New Zealand Workplace Exposure Standards (WES)

## Hazardous Substance Location

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

Hazard Class	Quantity (Closed containers)	Quantity (Open Containers)
2.1.2A	3000L (aggregate water capacity)	3 000 L (aggregate water capacity)

## Certified Handler

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

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (Kg)	Maximum quantity per package for each classification
2.1.2A				3000 L (aggregate water capacity)

## Tracking Requirements

Not Applicable

## National Inventory Status

National Inventory	Status
Australia - AIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (white mineral oil (petroleum); alcohols C12-14 ethoxylated; carbon dioxide)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (alcohols C12-14 ethoxylated)
Vietnam - NCI	Yes
Russia - FBEPH	Yes
<b>Legend:</b>	<i>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.</i>

## SECTION 16 Other information

<b>Revision Date</b>	29/03/2023
<b>Initial Date</b>	28/03/2023

## 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.