

# **Chemtools Pty Ltd**

Chemwatch: **5606-33** Version No: **2.1** 

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 Date: **24/05/2023**Print Date: **30/05/2023**S.GHS.AUS/NZ.EN.E

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

#### **Product Identifier**

Product name	DEOX R23 Food Safe Anti-Seize (Aerosol)
Chemical Name	Not Applicable
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	Use according to manufacturer's directions.  Application is by spray atomisation from a hand held aerosol pack
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#### Details of the manufacturer or supplier of the safety data sheet

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

# **Emergency telephone number**

Association / Organisation	Poisons Information Centre	National Poisons Centre
Emergency telephone numbers	13 11 26	0800 764 766
Other emergency telephone numbers	Not Available	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 2B, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Specific Target Organ Toxicity - Repeated Exposure Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

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#### Label elements

Hazard pictogram(s)









Signal word

Danger

#### Hazard statement(s)

AUH044	Risk of explosion if heated under confinement.
H222+H229	Extremely flammable aerosol. Pressurized container: may burst if heated.
H304	May be fatal if swallowed and enters airways.
H320	Causes eye irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

# Precautionary statement(s) Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P264	Wash all exposed external body areas thoroughly after handling.

# 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.
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P391	Collect spillage.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

# Precautionary statement(s) Storage

P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

# Precautionary statement(s) Disposal

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

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, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category

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	3, Hazardous to the Aquatic Environment Long-Term Hazard Category 2
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), 6.9B (narcotic effects), 9.1B

#### Label elements

Hazard pictogram(s)









Signal word

d Danger

# Hazard statement(s)

H222+H229	Extremely flammable aerosol. Pressurized container: may burst if heated.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

# **Supplementary Phrases**

Not Applicable

# Precautionary statement(s) Prevention

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# Precautionary statement(s) Disposal

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

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

# **Substances**

See section below for composition of Mixtures

# **Mixtures**

CAS No	%[weight]	Name
8042-47-5	10-30	white mineral oil (petroleum)

# **DEOX R23 Food Safe Anti-Seize (Aerosol)**

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CAS No	%[weight]	Name
1314-13-2	10-30	zinc oxide
68476-85-7.	>60	hydrocarbon propellant
Not Available	balance	Ingredients determined not to be hazardous
Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available	

# **SECTION 4 First aid measures**

Description	of first aid	moscuroc
Describtion	or first aid	measures

Description of first aid m	easures
Eye Contact	If aerosols come in contact with the eyes:  Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water.  Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.  Transport to hospital or doctor without delay.  Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	For thermal burns:  Decontaminate area around burn.  Consider the use of cold packs and topical antibiotics.  For first-degree burns (affecting top layer of skin)  Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides.  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 lice as this may lower body temperature and cause further damage.  Do NOT phylice as this may lower body temperature and cause further damage.  Do NOT preak 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 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 soilds or aerosol mists are deposited upon t
Inhalation	If aerosols, fumes or combustion products are inhaled:  Remove to fresh air.  Lay patient down. Keep warm and rested.  Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.  If breathing is shallow or has stopped, ensure 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	Avoid giving milk or oils.     Avoid giving alcohol.     Not considered a normal route of entry.

# Indication of any immediate medical attention and special treatment needed

#### **DEOX R23 Food Safe Anti-Seize (Aerosol)**

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

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

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Fire Fighting

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may
result

#### Advice for firefighters

Alert Fire Brigade and tell them location and nature of hazar
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- 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.
- Equipment should be thoroughly decontaminated after use.

#### Liquid and vapour are highly flammable.

- Severe fire hazard when exposed to heat or flame.
- Vapour forms an explosive mixture with air.
- ▶ Severe explosion hazard, in the form of vapour, when exposed to flame or spark.
- Vapour may travel a considerable distance to source of ignition.
- ▶ Heating may cause expansion or decomposition with violent container rupture.
- Aerosol cans may explode on exposure to naked flames.
- Rupturing containers may rocket and scatter burning materials.
- Hazards may not be restricted to pressure effects.
- May emit acrid, poisonous or corrosive fumes.
- ▶ On combustion, may emit toxic fumes of carbon monoxide (CO).

Combustion products include:

carbon monoxide (CO)

carbon dioxide (CO2)

metal oxides

other pyrolysis products typical of burning organic material.

**CARE**: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns. Foaming may cause overflow of containers and may result in possible fire.

# **SECTION 6 Accidental release measures**

# Personal precautions, protective equipment and emergency procedures

See section 8

#### **Environmental precautions**

Fire/Explosion Hazard

See section 12

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# Methods and material for containment and cleaning up

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#### Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Wear protective clothing, impervious gloves and safety glasses. Minor Spills ▶ Shut off all possible sources of ignition and increase ventilation. Wipe up. If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated. Undamaged cans should be gathered and stowed safely. ▶ Clear area of personnel and move upwind. 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 courses ▶ No smoking, naked lights or ignition sources. **Major Spills** Increase ventilation. Stop leak if safe to do so. Water spray or fog may be used to disperse / absorb vapour. Absorb or cover spill with sand, earth, inert materials or vermiculite. If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated. Undamaged cans should be gathered and stowed safely. Collect residues and seal in labelled drums for disposal.

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

#### **SECTION 7 Handling and storage**

Safe handling

Other information

Precau	ıtione	for	safe	handling	

- Avoid all personal contact, including inhalation.
  Wear protective clothing when risk of exposure occurs.
  Use in a well-ventilated area.
  Prevent concentration in hollows and sumps.
  - PO NOT enter confined enaces until atmosphere has
  - ▶ DO NOT enter confined spaces until atmosphere has been checked.
  - Avoid smoking, naked lights or ignition sources.
  - Avoid contact with incompatible materials.
     When handling, DO NOT eat, drink or smoke.
  - DO NOT incinerate or puncture aerosol cans.
  - DO NOT spray directly on humans, exposed food or food utensils.
  - Avoid physical damage to containers.
  - Always wash hands with soap and water after handling.
  - Work clothes should be laundered separately.
  - Use good occupational work practice.
  - ▶ Observe manufacturer's storage and handling recommendations contained within this SDS.
  - Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
  - Store below 38 deg. C.
  - Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can
  - ▶ Store in original containers in approved flammable liquid storage area.
  - ▶ DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
  - No smoking, naked lights, heat or ignition sources.
  - Keep containers securely sealed. Contents under pressure.
  - Store away from incompatible materials.
  - Store in a cool, dry, well ventilated area.
  - Avoid storage at temperatures higher than 40 deg C.
  - Store in an upright position.
  - Protect containers against physical damage.
  - Check regularly for spills and leaks.
  - ▶ Observe manufacturer's storage and handling recommendations contained within this SDS.

#### Conditions for safe storage, including any incompatibilities

# Suitable container Aerosol dispenser. Check that containers are clearly labelled. 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 Avoid reaction with oxidising agents

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#### DEOX R23 Food Safe Anti-Seize (Aerosol)

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- X Must not be stored together
- **0** 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	Ingredient	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	zinc oxide	Zinc oxide (dust)	10 mg/m3	Not Available	Not Available	(a) This value is for inhalable dust containing no asbestos and < 1% crystalline silica.
Australia Exposure Standards	zinc oxide	Zinc oxide (fume)	5 mg/m3	10 mg/m3	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	zinc oxide	Zinc oxide	2 mg/m3	5 mg/m3	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	zinc oxide	Zinc oxide respirable dust	0.1 mg/m3	0.5 mg/m3	Not Available	Not Available
Australia Exposure Standards	hydrocarbon propellant	LPG (liquified petroleum gas)	1000 ppm / 1800 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	hydrocarbon propellant	LPG (Liquefied petroleum gas)	1000 ppm / 1800 mg/m3	Not Available	Not Available	Not Available

# **Emergency Limits**

Ingredient	TEEL-1	TEEL-2	TEEL-3
white mineral oil (petroleum)	140 mg/m3	1,500 mg/m3	8,900 mg/m3
zinc oxide	10 mg/m3	15 mg/m3	2,500 mg/m3
hydrocarbon propellant	65,000 ppm	2.30E+05 ppm	4.00E+05 ppm

Ingredient	Original IDLH	Revised IDLH
white mineral oil (petroleum)	2,500 mg/m3	Not Available
zinc oxide	500 mg/m3	Not Available
hydrocarbon propellant	2,000 ppm	Not Available

# **Exposure controls**

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. 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.

General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.

Provide adequate ventilation in warehouse or closed storage areas.

# Appropriate engineering controls

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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.

Type of Contaminant:	Speed:
aerosols, (released at low velocity into zone of active generation)	0.5-1 m/s
direct spray, spray painting in shallow booths, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)

Within each range the appropriate value depends on:

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

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.

Individual protection measures, such as personal protective equipment









#### Eye and face protection

No special equipment for minor exposure i.e. when handling small quantities.

OTHERWISE: For potentially moderate or heavy exposures:

- Safety glasses with side shields.
- ▶ NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.

# Skin protection Hands/feet protection

See Hand protection below

• Elbow length PVC gloves

Body protection See Other protection below

No special equipment needed when handling small quantities.

# OTHERWISE: • Overalls.

- Other protection
- Skin cleansing cream.
- ► Eyewash unit.
- Do not spray on hot surfaces.

# Respiratory protection

Type AX-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	AX-AUS P2	-	AX-PAPR-AUS / Class 1 P2
up to 50 x ES	-	AX-AUS / Class 1 P2	-
up to 100 x ES	-	AX-2 P2	AX-PAPR-2 P2 ^

#### ^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

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

Appearance

Liquid aerosol; does not mix with water.

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# **DEOX R23 Food Safe Anti-Seize (Aerosol)**

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Physical state	Liquid	Relative density (Water = 1)	Not Available
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)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	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

# **SECTION 10 Stability and reactivity**

Reactivity	See section 7
Chemical stability	<ul> <li>Elevated temperatures.</li> <li>Presence of open flame.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

# **SECTION 11 Toxicological information**

# Information on toxicological effects

•	
Inhaled	Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.  Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.  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.  Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.  Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.  Inhalation of oil droplets or aerosols may cause discomfort and may produce chemical inflammation of the lungs.  Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.  WARNING:Intentional misuse by concentrating/inhaling contents may be lethal.
Ingestion	Overexposure is unlikely in this form.  Not normally a hazard due to physical form of product.  Considered an unlikely route of entry in commercial/industrial environments
Skin Contact	Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.  There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons.  Spray mist may produce discomfort  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.

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# **DEOX R23 Food Safe Anti-Seize (Aerosol)**

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Irritation and skin reactions are possible with sensitive skin

Open cuts, abraded or irritated skin should not be exposed to this material

The material may accentuate any pre-existing dermatitis condition

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.

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

Eye

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There is some evidence to suggest that this material can cause eye irritation and damage in some persons. Not considered to be a risk because of the extreme volatility of the gas.

Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems.

This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.

Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility.

Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother.

There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.

Chronic

Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin.

Main route of exposure to the gas in the workplace is by inhalation.

Welding or flame cutting of metals with zinc or zinc dust coatings may result in inhalation of zinc oxide fume; high concentrations of zinc oxide fume may result in "metal fume fever"; also known as "brass chills", an industrial disease of short duration. [I.L.O] Symptoms include malaise, fever, weakness, nausea and may appear quickly if operations occur in enclosed or poorly ventilated areas.

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.

DEOX R23 Food Safe	TOXICITY	IRRITATION
Anti-Seize (Aerosol)	Not Available	Not Available
	TOXICITY	IRRITATION
white mineral oil	Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
(petroleum)	Inhalation(Rat) LC50: >4.5 mg/l4h <sup>[1]</sup>	Skin: adverse effect observed (irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >5000 mg/kg <sup>[2]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
zinc oxide	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit) : 500 mg/24 h - mild
	Inhalation(Rat) LC50: >1.79 mg/l4h <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >5000 mg/kg <sup>[1]</sup>	Skin (rabbit) : 500 mg/24 h- mild
		Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	TOXICITY	IRRITATION
hydrocarbon propellant	Inhalation(Rat) LC50: 658 mg/l4h <sup>[2]</sup>	Not Available
Legend:	Nalue 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	

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) 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.

For highly and severely refined distillate base oils:

#### WHITE MINERAL OIL (PETROLEUM)

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 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

• The adverse effects of these materials are associated with undesirable components, and

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DEOX R23 Food Safe Anti-Seize (Aerosol)

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	<ul> <li>The levels of the undesirable components are inversely related to the degree of processing;</li> <li>Distillate base oils receiving the same degree or extent of processing will have similar toxicities;</li> <li>The potential toxicity of residual base oils is independent of the degree of processing the oil receives.</li> <li>The reproductive and developmental toxicity of the distillate base oils is inversely related to the degree of processing. Unrefined &amp; 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.</li> <li>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 extractables (e.g. IP346 assay), both characteristics that are directly related to the degree/conditions of processing.</li> </ul>		
ZINC OXIDE	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.		
HYDROCARBON PROPELLANT	No significant acute toxicological data identified in literature search. inhalation of the gas		
Acute Toxicity	×	Carcinogenicity	x
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	<b>~</b>

Legend:

🗶 – Data either not available or does not fill the criteria for classification

✓ – Data available to make classification

# **SECTION 12 Ecological information**

# **Toxicity**

DEOV DOS Es ad Cafe	Endpoint	Test Duration (hr)		Species		Value	Source
DEOX R23 Food Safe Anti-Seize (Aerosol)	Not Available	Not Available		Not Available		Not Available	Not Available
white mineral oil	Endpoint	Test Duration (hr)	S	Species		Value	Source
(petroleum)	LC50	96h	F	Fish		>10000mg/L	2
	Endpoint	Test Duration (hr)	Sp	pecies	Va	lue	Sourc
	BCF	1344h	Fis	sh	19	-110	7
zinc oxide	LC50	96h	Fis	Fish		112mg/l	2
	EC50	72h	Alg	Algae or other aquatic plants		036-0.049mg/l	4
	EC50	48h	Cr	ustacea	0.1	105mg/l	2
	EC10(ECx)	168h	Alç	gae or other aquatic plants	0.0	0025mg/l	2
	EC50	96h	Alç	gae or other aquatic plants	0.3	3mg/l	2
	Endpoint	Test Duration (hr)		Species		Value	Sourc
	EC50(ECx)	96h		Algae or other aquatic plants		7.71mg/l	2
hydrocarbon propellant	LC50	96h		Fish		24.11mg/l	2
	EC50	96h		Algae or other aquatic plants		7.71mg/l	2
Legend:	4. US EPA, E	n 1. IUCLID Toxicity Data 2. Europ cotox database - Aquatic Toxicity ion Data 7. METI (Japan) - Biocol	Data 5. ECET	, ГОС Aquatic Hazard Assessment	•	•	

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

#### **Bioaccumulative potential**

Ingredient	Bioaccumulation
zinc oxide	LOW (BCF = 217)

#### Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

#### **SECTION 13 Disposal considerations**

#### Waste treatment methods

**Product / Packaging** 

disposal

- ▶ DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Consult State Land Waste Management Authority for disposal.
- Discharge contents of damaged aerosol cans at an approved site.
- Allow small quantities to evaporate.
- ► DO NOT incinerate or puncture aerosol cans.
- ▶ Bury residues and emptied aerosol cans at an approved site.

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

#### **Disposal Requirements**

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

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

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**



Marine Pollutant



HAZCHEM

Not Applicable

Chemwatch: **5606-33**Part Number:
Version No: **2.1** 

# DEOX R23 Food Safe Anti-Seize (Aerosol)

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# Land transport (ADG)

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

# Land transport (UN)

UN number or ID number	1950	
UN proper shipping name	AEROSOLS	
Transport hazard class(es)	Class 2.1 Subsidiary risk Not Applicable	
Packing group	Not Applicable	
Environmental hazard		
Special precautions for user		

# Air transport (ICAO-IATA / DGR)

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

# Sea transport (IMDG-Code / GGVSee)

UN number	1950		
UN proper shipping name	AEROSOLS	AEROSOLS	
Transport hazard class(es)	IMDG Class 2.1  IMDG Subrisk Not Applicable		
Packing group	Not Applicable		
Environmental hazard	Marine Pollutant		
Special precautions for user	EMS Number  Special provisions  Limited Quantities		

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# 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 (petroleum)	Not Available
zinc oxide	Not Available
hydrocarbon propellant	Not Available

# Transport in bulk in accordance with the IGC Code

Product name	Ship Type
white mineral oil (petroleum)	Not Available
zinc oxide	Not Available
hydrocarbon propellant	Not Available

#### **SECTION 15 Regulatory information**

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

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

HSR Number	Group Standard	
HSR002515	Aerosols Flammable Group Standard 2020	

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

#### 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

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)

# zinc oxide is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

Australian Inventory of Industrial Chemicals (AIIC)

International WHO List of Proposed Occupational Exposure Limit (OEL)

Values for Manufactured Nanomaterials (MNMS)

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)

#### hydrocarbon propellant is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

New Zealand Approved Hazardous Substances with controls

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

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

New Zealand Inventory of Chemicals (NZIoC)

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	3 000 L (aggregate water capacity)	3 000 L (aggregate water capacity)

#### **Certified Handler**

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**DEOX R23 Food Safe Anti-Seize (Aerosol)** 

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

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

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

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

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
2.1.2A				1L (aggregate water capacity)

# **Tracking Requirements**

Not Applicable

Version No: 2.1

# **National Inventory Status**

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	Yes
Canada - NDSL	No (white mineral oil (petroleum); hydrocarbon propellant)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	Yes
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	Yes
Vietnam - NCI	Yes
Russia - FBEPH	Yes
Yes = All CAS declared ingredients are on the inventory  Legend:  No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will registration.	

#### **SECTION 16 Other information**

Revision Date	24/05/2023
Initial Date	24/05/2023

# 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.