



## Pistol Brake Cleaner

### Swanzone Pty Ltd

Chemwatch Hazard Alert Code: 3

Chemwatch: 5589-64

Issue Date: 24/02/2023

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Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements S.GHS.AUS/NZ.EN.E

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

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

### Product Identifier

|                               |   |
|-------------------------------|---|
| Product name                  | Pistol Brake Cleaner                                  |
| Chemical Name                 | Not Applicable  |
| Synonyms                      | BRAKE AND PARTS CLEANER; BRAKE CLEANER; PARTS CLEANER |
| 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 | Brake cleaner. Degreaser.<br>Use according to manufacturer's directions.<br>Application is by spray atomisation from a hand held aerosol pack |
|--------------------------|---|

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

|                         |   |
|-------------------------|---|
| Registered company name | Swanzone Pty Ltd  |
| Address                 | 36 Logistics Street Keilor Park Victoria 3042 Australia |
| Telephone               | 03 9336 2889  |
| Fax                     | 03 9336 2893  |
| Website                 | Not Available   |
| Email                   | info@swanzone.com.au                                    |

### Emergency telephone number

| Association / Organisation        | CHEMWATCH EMERGENCY RESPONSE AUS (24/7) | CHEMWATCH EMERGENCY RESPONSE NZL (24/7) |
|-----------------------------------|---|---|
| Emergency telephone numbers       | +61 1800 951 288                        | +64 800 700 112                         |
| Other emergency telephone numbers | +61 3 9573 3188                         | +61 3 9573 3188                         |

Pistol Brake Cleaner

Once connected and if the message is not in your preferred language then please dial 01


## SECTION 2 Hazards identification

### Classification of the substance or mixture

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

|                                      |   |
|--------------------------------------|---|
| <b>Poisons Schedule</b>              | Not Applicable  |
| <b>Classification</b> <sup>[1]</sup> | Aerosols Category 1, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3                                 |
| <b>Legend:</b>                       | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |

### Label elements

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

### Hazard statement(s)

|                  |  |
|------------------|--|
| <b>AUH044</b>    | Risk of explosion if heated under confinement.                           |
| <b>H222+H229</b> | Extremely flammable aerosol. Pressurized container: may burst if heated. |
| <b>H336</b>      | May cause drowsiness or dizziness.                                       |

### Precautionary statement(s) Prevention

|             |  |
|-------------|--|
| <b>P210</b> | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| <b>P211</b> | Do not spray on an open flame or other ignition source.  |
| <b>P251</b> | Do not pierce or burn, even after use.   |
| <b>P271</b> | Use only outdoors or in a well-ventilated area.  |
| <b>P261</b> | Avoid breathing mist/vapours/spray.  |

### Precautionary statement(s) Response

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

### Precautionary statement(s) Storage

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

### Precautionary statement(s) Disposal

|             |  |
|-------------|--|
| <b>P501</b> | 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.**

|                                      |   |
|--------------------------------------|---|
| <b>Classification</b> <sup>[1]</sup> | Aerosols Category 1, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3 |
|--------------------------------------|---|

**Pistol Brake Cleaner**

**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, 6.9B (narcotic effects)

**Label elements**



**Signal word** **Danger**

**Hazard statement(s)**

**H222+H229** Extremely flammable aerosol. Pressurized container: may burst if heated.  
**H336** May cause drowsiness or dizziness.

**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.  
**P271** Use only outdoors or in a well-ventilated area.  
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**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.

**SECTION 3 Composition / information on ingredients**

**Substances**

See section below for composition of Mixtures

**Mixtures**

| CAS No        | %[weight] | Name                   |
|---------------|-----------|------------------------|
| Not Available | <80       | petroleum derivatives  |
| 124-38-9      | <5        | carbon dioxide         |
| 68476-85-7.   | <30       | hydrocarbon propellant |

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**Legend:** 1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; \* EU IOELVs available

## SECTION 4 First aid measures

### Description of first aid measures

|                     |   |
|---------------------|---|
| <b>Eye Contact</b>  | <p>If aerosols come in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Immediately hold the eyelids apart and flush the eye with fresh running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>  |
| <b>Skin Contact</b> | <p>If solids or aerosol mists are deposited upon the skin:</p> <ul style="list-style-type: none"> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Remove any adhering solids with industrial skin cleansing cream.</li> <li>▶ <b>DO NOT use solvents.</b></li> <li>▶ Seek medical attention in the event of irritation.</li> </ul>   |
| <b>Inhalation</b>   | <p>If aerosols, fumes or combustion products are inhaled:</p> <ul style="list-style-type: none"> <li>▶ Remove to fresh air.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ 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.</li> <li>▶ Transport to hospital, or doctor.</li> </ul> |
| <b>Ingestion</b>    | Not considered a normal route of entry.   |

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

For petroleum distillates

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

## SECTION 5 Firefighting measures

### Extinguishing media

#### SMALL FIRE:

- ▶ Water spray, dry chemical or CO2

Continued...

**Pistol Brake Cleaner**

**LARGE FIRE:**

- ▶ Water spray or fog.

**Special hazards arising from the substrate or mixture**

|                             |  |
|-----------------------------|--|
| <b>Fire Incompatibility</b> | <ul style="list-style-type: none"> <li>▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result</li> </ul> |
|-----------------------------|--|

**Advice for firefighters**

|                              |  |
|------------------------------|--|
| <b>Fire Fighting</b>         | <ul style="list-style-type: none"> <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 course.</li> <li>▶ If safe, switch off electrical equipment until vapour fire hazard removed.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> <li>▶ Equipment should be thoroughly decontaminated after use.</li> </ul>   |
| <b>Fire/Explosion Hazard</b> | <ul style="list-style-type: none"> <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 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:<br/>carbon dioxide (CO<sub>2</sub>)<br/>other pyrolysis products typical of burning organic material.</p> |

**SECTION 6 Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

See section 8

**Environmental precautions**

See section 12

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

|                     |   |
|---------------------|---|
| <b>Minor Spills</b> | <ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours 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>Major 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> </ul>  |

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- ▶ Prevent, by any means available, spillage from entering drains or water courses
- ▶ No smoking, naked lights or ignition sources.
- ▶ 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

### 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></li> <li>▶ 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> <li>▶ <b>DO NOT spray directly on humans, exposed food or food utensils.</b></li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions 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> <li>▶ Avoid strong acids, bases.</li> </ul> |

## 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                   | 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 |
| 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       |
|------------------------|------------|--------------|--------------|
| hydrocarbon propellant | 65,000 ppm | 2.30E+05 ppm | 4.00E+05 ppm |

| Ingredient             | Original IDLH | Revised IDLH  |
|------------------------|---------------|---------------|
| carbon dioxide         | 40,000 ppm    | Not Available |
| hydrocarbon propellant | 2,000 ppm     | Not Available |

### Exposure controls

| <b>Appropriate engineering controls</b>   | <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 which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>General exhaust is adequate under normal conditions. If 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> <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th>Type of Contaminant:</th> <th>Speed:</th> </tr> </thead> <tbody> <tr> <td>aerosols, (released at low velocity into zone of active generation)</td> <td>0.5-1 m/s</td> </tr> <tr> <td>direct spray, spray painting in shallow booths, gas discharge (active generation into zone of rapid air motion)</td> <td>1-2.5 m/s (200-500 f/min.)</td> </tr> </tbody> </table> <p>Within each range the appropriate value depends on:</p> | 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.) |
|---|--|----------------------|--------|---|-----------|---|----------------------------|
| 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.)   |                      |        |   |           |   |                            |

|   |   |   |
|---|---|---|
|   | <p>Lower end of the range</p> <p>1: Room air currents minimal or favourable to capture</p> <p>2: Contaminants of low toxicity or of nuisance value only.</p> <p>3: Intermittent, low production.</p> <p>4: Large hood or large air mass in motion</p>   | <p>Upper end of the range</p> <p>1: Disturbing room air currents</p> <p>2: Contaminants of high toxicity</p> <p>3: High production, heavy use</p> <p>4: Small hood-local control only</p> |
|   | <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> |   |
| Individual protection measures, such as personal protective equipment |    |   |
| Eye and face protection   | <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 <b>ALL</b> lenses concentrate them.</li> </ul>  |   |
| Skin protection   | See Hand protection below   |   |
| Hands/feet protection   | <ul style="list-style-type: none"> <li>▸ No special equipment needed when handling small quantities.</li> <li>▸ <b>OTHERWISE:</b></li> <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>  |   |
| Body protection   | See Other protection below  |   |
| Other protection  | <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 AX 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 5 x ES                       | Air-line*            | AX-2                 | AX-PAPR-2 ^            |
| up to 10 x ES                      | -                    | AX-3                 | -                      |
| 10+ x ES                           | -                    | Air-line**           | -                      |

\* - Continuous Flow; \*\* - Continuous-flow or positive pressure demand

^ - 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>                                   | Clear liquid aerosol with a stimulating odour; does not mix with water. Clear |  |                |
| <b>Physical state</b>                               | Liquid  | <b>Relative density (Water = 1)</b>            | 0.678-0.730    |
| <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 Applicable  | <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> | >60   | <b>Molecular weight (g/mol)</b>                | Not Applicable |
| <b>Flash point (°C)</b>                             | >-22  | <b>Taste</b>                                   | Not Available  |
| <b>Evaporation rate</b>                             | Not Available   | <b>Explosive properties</b>                    | Not Available  |
| <b>Flammability</b>                                 | HIGHLY FLAMMABLE.   | <b>Oxidising properties</b>                    | Not Available  |
| <b>Upper Explosive Limit (%)</b>                    | 6.3   | <b>Surface Tension (dyn/cm or mN/m)</b>        | Not Available  |
| <b>Lower Explosive Limit (%)</b>                    | 1.2   | <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>                          | Immiscible  | <b>pH as a solution (1%)</b>                   | Not Applicable |
| <b>Vapour density (Air = 1)</b>                     | Not Available   | <b>VOC g/L</b>                                 | >95            |

## 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</b>            | See section 5  |

products

**SECTION 11 Toxicological information**

**Information on toxicological effects**

|                     |   |
|---------------------|---|
| <b>Inhaled</b>      | <p>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.</p> <p>Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p> <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>Inhaling high concentrations of mixed hydrocarbons can cause narcosis, with nausea, vomiting and lightheadedness. Low molecular weight (C2-C12) hydrocarbons can irritate mucous membranes and cause incoordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and stupor.</p> <p>51cnsdepr</p> <p><b>WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.</b></p> <p>The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.</p> |
| <b>Ingestion</b>    | <p>Not normally a hazard due to physical form of 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> <p>Isoparaffinic hydrocarbons cause temporary lethargy, weakness, inco-ordination and diarrhoea.</p>  |
| <b>Skin Contact</b> | <p>The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.</p> <p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.</p> <p>Skin exposure to isoparaffins may produce slight to moderate irritation in animals and humans. Rare sensitisation reactions in humans have occurred.</p> <p>Spray mist may produce discomfort</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>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.</p>  |
| <b>Eye</b>          | <p>Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).</p> <p>Instillation of isoparaffins into rabbit eyes produces only slight irritation.</p> <p>Not considered to be a risk because of the extreme volatility of the gas.</p>  |
| <b>Chronic</b>      | <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>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.</p> <p>Main route of exposure to the gas in the workplace is by inhalation.</p>   |

|                             |                 |                   |
|-----------------------------|-----------------|-------------------|
| <b>Pistol Brake Cleaner</b> | <b>TOXICITY</b> | <b>IRRITATION</b> |
|                             | Not Available   | Not Available     |

Pistol Brake Cleaner

|                        |   |                   |
|------------------------|---|-------------------|
| carbon dioxide         | <b>TOXICITY</b>   | <b>IRRITATION</b> |
|                        | Not Available   | Not Available     |
| hydrocarbon propellant | <b>TOXICITY</b>   | <b>IRRITATION</b> |
|                        | Inhalation(Rat) LC50: 658 mg/l4h <sup>[2]</sup>   | Not Available     |
| <b>Legend:</b>         | 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 |                   |

|  |  |
|--|--|
| <b>Pistol Brake Cleaner</b>                              | <p>Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins.</p> <p>The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet. Some hydrocarbons may appear unchanged as in the lipoprotein particles in the gut lymph, but most hydrocarbons partly separate from fats and undergo metabolism in the gut cell. The gut cell may play a major role in determining the proportion of hydrocarbon that becomes available to be deposited unchanged in peripheral tissues such as in the body fat stores or the liver.</p> |
| <b>HYDROCARBON PROPELLANT</b>                            | inhalation of the gas  |
| <b>Pistol Brake Cleaner &amp; HYDROCARBON PROPELLANT</b> | No significant acute toxicological data identified in literature search.   |

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

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

## SECTION 12 Ecological information

### Toxicity

|                               | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|-------------------------------|---------------|--------------------|-------------------------------|---------------|---------------|
| <b>Pistol Brake Cleaner</b>   | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| <b>carbon dioxide</b>         | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                               | LC50          | 96h                | Fish                          | 35mg/l        | 1             |
| <b>hydrocarbon propellant</b> | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                               | EC50(ECx)     | 96h                | Algae or other aquatic plants | 7.71mg/l      | 2             |
|                               | LC50          | 96h                | Fish                          | 24.11mg/l     | 2             |

Continued...

|                |   |     |                               |          |   |
|----------------|---|-----|-------------------------------|----------|---|
|                | EC50  | 96h | Algae or other aquatic plants | 7.71mg/l | 2 |
| <b>Legend:</b> | <i>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</i> |     |                               |          |   |

When released in the environment, alkanes don't undergo rapid biodegradation, because they have no functional groups (like hydroxyl or carbonyl) that are needed by most organisms in order to metabolize the compound.

However, some bacteria can metabolise some alkanes (especially those linear and short), by oxidizing the terminal carbon atom.

The product is an alcohol, that could be next oxidised to an aldehyde, and finally to a carboxylic acid. The resulting fatty acid could be metabolised through the fatty acid degradation pathway.

For Petroleum Hydrocarbon Gases:

**Environmental Fate:** Petroleum hydrocarbon gases are primarily produced in petroleum refineries, or in gas plants that separate natural gas and natural gas liquids. This category contains 99 petroleum hydrocarbon gas substances, the majority of which never reach the consumer. Petroleum hydrocarbon gases do not contain inorganic compounds, (e.g. hydrogen sulfide, ammonia, and carbon monoxide), other than asphyxiant gases; the low molecular weight hydrocarbon molecules are primarily responsible for the hazard associated with these gases.

**Atmospheric Fate:** All components of these gases will evaporate to the air where interaction with hydroxyl radicals is an important fate process. Substances in refinery gases that evaporate to air may undergo indirect, gas-phase oxidation reaction with hydroxyl radicals and this is an important fate process for these substances. Half-lives for refinery gases range from 960 days, (methane), to 0.16 days, (butadiene). The constituents of the C5- C6 hydrocarbon gases have light breakdown half-lives of approximately two days. The inorganic gases are chemically stable and may be lost to the atmosphere or simply become involved in the environmental recycling of their atoms.

**Terrestrial Fate:** Biological breakdown of these organisms is not expected to be an important fate process since they tend to evaporate to the air, however; some of the higher weight components may become available for microbial attack. Naphtha gases are also considered to be inherently biodegradable.

**Aquatic Fate:** The solubilities of these substances in water vary, ranging from approximately 22 parts per million to several hundred parts per million. Some of these gasses have substantial water solubility, but they will eventually evaporate to the atmosphere.

Refinery gases are not broken down by water but, they will be broken down by microbes. Gaseous hydrocarbons are widespread in nature and numerous types of microbes have evolved which are capable of oxidizing these substances as their sole energy source.

**Ecotoxicity:** These substances vary in their toxicities to aquatic organisms from slightly toxic to moderately toxic. They are not expected to persist long enough in the environment to elicit toxicity. Emissions of petroleum hydrocarbon gases to the atmosphere would not likely result in acutely toxic concentrations in adjacent water bodies because such emissions will tend to remain in the atmosphere. Several of the constituents in refinery gases were shown to be highly hazardous to aquatic organisms in laboratory toxicity tests where exposure concentrations can be maintained over time. Hydrogen sulfide was shown to be the most toxic constituent to fish, and invertebrates.

For petroleum distillates:

**Environmental fate:**

When petroleum substances are released into the environment, four major fate processes will take place: dissolution in water, volatilization, biodegradation and adsorption. These processes will cause changes in the composition of these UVCB substances. In the case of spills on land or water surfaces, photodegradation-another fate process-can also be significant.

As noted previously, the solubility and vapour pressure of components within a mixture will differ from those of the component alone. These interactions are complex for complex UVCBs such as petroleum hydrocarbons.

Each of the fate processes affects hydrocarbon families differently. Aromatics tend to be more water-soluble than aliphatics of the same carbon number, whereas aliphatics tend to be more volatile. Thus, when a petroleum mixture is released into the environment, the principal water contaminants are likely to be aromatics, whereas aliphatics will be the principal air contaminants. The trend in volatility by component class is as follows: alkenes = alkanes > aromatics = cycloalkanes.

The most soluble and volatile components have the lowest molecular weight; thus there is a general shift to higher molecular weight components in residual materials.

**Biodegradation:**

Biodegradation is almost always operative when petroleum mixtures are released into the environment. It has been widely demonstrated that nearly all soils and sediments have populations of bacteria and other organisms capable of degrading petroleum hydrocarbons. Degradation occurs both in the presence and absence of oxygen. Two key factors that determine degradation rates are oxygen supply and molecular structure. In general, degradation is more rapid under aerobic conditions. Decreasing trends in degradation rates according to structure are as follows:

- (1) n-alkanes, especially in the C10–C25 range, which are degraded readily;
- (2) isoalkanes;
- (3) alkenes;
- (4) benzene, toluene, ethylbenzene, xylenes (BTEX) (when present in concentrations that are not toxic to microorganisms);
- (5) monoaromatics;
- (6) polynuclear (polycyclic) aromatic hydrocarbons (PAHs); and
- (7) higher molecular weight cycloalkanes (which may degrade very slowly).

Three weathering processes—dissolution in water, volatilization and biodegradation—typically result in the depletion of the more readily soluble, volatile and degradable compounds and the accumulation of those most resistant to these processes in residues.

When large quantities of a hydrocarbon mixture enter the soil compartment, soil organic matter and other sorption sites in soil are fully saturated and the hydrocarbons will begin to form a separate phase (a non-aqueous phase liquid, or NAPL) in the soil. At concentrations below the retention capacity for the hydrocarbon in the soil, the NAPL will be immobile this is referred to as residual NAPL. Above the retention capacity, the NAPL becomes mobile and will move within the soil

Bioaccumulation:

Bioaccumulation potential was characterized based on empirical and/or modelled data for a suite of petroleum hydrocarbons expected to occur in petroleum substances. Bioaccumulation factors (BAFs) are the preferred metric for assessing the bioaccumulation potential of substances, as the bioconcentration factor (BCF) may not adequately account for the bioaccumulation potential of substances via the diet, which predominates for substances with  $\log K_{ow} > \sim 4.5$

In addition to fish BCF and BAF data, bioaccumulation data for aquatic invertebrate species were also considered. Biota-sediment/soil accumulation factors (BSAFs), trophic magnification factors and biomagnification factors were also considered in characterizing bioaccumulation potential.

Overall, there is consistent empirical and predicted evidence to suggest that the following components have the potential for high bioaccumulation, with BAF/BCF values greater than 5000: C13–C15 isoalkanes, C12 alkenes, C12–C15 one-ring cycloalkanes, C12 and C15 two-ring cycloalkanes, C14 polycycloalkanes, C15 one-ring aromatics, C15 and C20 cycloalkane monoaromatics, C12–C13 diaromatics, C20 cycloalkane diaromatics, and C14 and C20 three-ring PAHs

These components are associated with a slow rate of metabolism and are highly lipophilic. Exposures from water and diet, when combined, suggest that the rate of uptake would exceed that of the total elimination rate. Most of these components are not expected to biomagnify in aquatic or terrestrial foodwebs, largely because a combination of metabolism, low dietary assimilation efficiency and growth dilution allows the elimination rate to exceed the uptake rate from the diet; however, one study suggests that some alkyl-PAHs may biomagnify. While only BSAFs were found for some PAHs, it is possible that BSAFs will be  $> 1$  for invertebrates, given that they do not have the same metabolic competency as fish.

In general, fish can efficiently metabolize aromatic compounds. There is some evidence that alkylation increases bioaccumulation of naphthalene but it is not known if this can be generalized to larger PAHs or if any potential increase in bioaccumulation due to alkylation will be sufficient to exceed a BAF/BCF of 5000.

Some lower trophic level organisms (i.e., invertebrates) appear to lack the capacity to efficiently metabolize aromatic compounds, resulting in high bioaccumulation potential for some aromatic components as compared to fish.

This is the case for the C14 three-ring PAH, which was bioconcentrated to a high level (BCF  $> 5000$ ) by invertebrates but not by fish. There is potential for such bioaccumulative components to reach toxic levels in organisms if exposure is continuous and of sufficient magnitude, though this is unlikely in the water column following a spill scenario due to relatively rapid dispersal

Bioaccumulation of aromatic compounds might be lower in natural environments than what is observed in the laboratory. PAHs may sorb to organic material suspended in the water column (dissolved humic material), which decreases their overall bioavailability primarily due to an increase in size. This has been observed with fish

Ecotoxicity:

Diesel fuel studies in salt water are available. The values varied greatly for aquatic species such as rainbow trout and *Daphnia magna*, demonstrating the inherent variability of diesel fuel compositions and its effects on toxicity. Most experimental acute toxicity values are above 1 mg/L. The lowest 48-hour LC50 for salmonids was 2.4 mg/L. *Daphnia magna* had a 24-hour LC50 of 1.8 mg/L. The values varied greatly for aquatic species such as rainbow trout and *Daphnia magna*, demonstrating the inherent variability of diesel fuel compositions and its effects on toxicity. Most experimental acute toxicity values are above 1 mg/L. The lowest 48-hour LC50 for salmonids was 2.4 mg/L. *Daphnia magna* had a 24-hour LC50 of 1.8 mg/L

The tropical mysid *Metamysidopsis insularis* was shown to be very sensitive to diesel fuel, with a 96-hour LC50 value of 0.22 mg/L this species has been shown to be as sensitive as temperate mysids to toxicants. However, this study used nominal concentrations, and therefore was not considered acceptable. In another study involving diesel fuel, the effect on brown or common shrimp (*Crangon crangon*) a 96-hour LC50 of 22 mg/L was determined. A "gas oil" was also tested and a 96-hour LC50 of 12 mg/L was determined

The steady state cell density of marine phytoplankton decreased with increasing concentrations of diesel fuel, with different sensitivities between species. The diatom *Phaeodactylum tricornutum* showed a 20% decrease in cell density in 24 hours following

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a 3 mg/L exposure with a 24-hour no-observed effect concentration (NOEC) of 2.5 mg/L. The microalga Isochrysis galbana was more tolerant to diesel fuel, with a 24-hour lowest-observed-effect concentration (LOEC) of 26 mg/L (14% decrease in cell density), and a NOEC of 25 mg/L.

Finally, the green algae Chlorella salina was relatively insensitive to diesel fuel contamination, with a 24-hour LOEC of 170 mg/L (27% decrease in cell density), and a NOEC of 160 mg/L. All populations of phytoplankton returned to a steady state within 5 days of exposure

In sandy soils, earthworm (Eisenia fetida) mortality only occurred at diesel fuel concentrations greater than 10 000 mg/kg, which was also the concentration at which sub-lethal weight loss was recorded

Nephrotoxic effects of diesel fuel have been documented in several animal and human studies. Some species of birds (mallard ducks in particular) are generally resistant to the toxic effects of petrochemical ingestion, and large amounts of petrochemicals are needed in order to cause direct mortality

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

**Persistence and degradability**

| Ingredient     | Persistence: Water/Soil | Persistence: Air |
|----------------|-------------------------|------------------|
| carbon dioxide | 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 / Packaging disposal</b> | <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></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>▶ <b>DO NOT incinerate or puncture aerosol cans.</b></li> <li>▶ Bury residues and emptied aerosol cans at an approved site.</li> </ul> |
|-------------------------------------|---|

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

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- (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                    |
|                                     | Subrisk            | 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                         |
|                                     | Subrisk            | 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 |

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|                                     |   |                |
|-------------------------------------|---|----------------|
|                                     | 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-U                   |
|                                     | 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         |
|------------------------|---------------|
| carbon dioxide         | Not Available |
| hydrocarbon propellant | Not Available |

**Transport in bulk in accordance with the IGC Code**

| Product name           | Ship Type     |
|------------------------|---------------|
| carbon dioxide         | 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 |

Continued...



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

**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)

**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**

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

**National Inventory Status**

| National Inventory                              | Status                                      |
|---|---|
| Australia - AIIC / Australia Non-Industrial Use | Yes   |
| Canada - DSL                                    | Yes   |
| Canada - NDSL                                   | No (carbon dioxide; hydrocarbon propellant) |
| China - IECSC                                   | Yes   |
| Europe - EINEC / ELINCS / NLP                   | Yes   |

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| National Inventory  | Status |
|---------------------|--------|
| 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    |

**Legend:**  
Yes = All CAS declared ingredients are on the inventory  
No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

**SECTION 16 Other information**

|               |            |
|---------------|------------|
| Revision Date | 24/02/2023 |
| Initial Date  | 24/02/2023 |

**SDS Version Summary**

| Version | Date of Update | Sections Updated  |
|---------|----------------|---|
| 2.1     | 24/02/2023     | Toxicological information - Acute Health (inhaled), Physical and chemical properties - Appearance, Firefighting measures - Fire Fighter (fire/explosion hazard), Composition / information on ingredients - Ingredients |

**Other information**

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

**Definitions and abbreviations**

PC—TWA: Permissible Concentration-Time Weighted Average  
PC—STEL: Permissible Concentration-Short Term Exposure Limit  
IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit.  
IDLH: Immediately Dangerous to Life or Health Concentrations  
ES: Exposure Standard  
OSF: Odour Safety Factor  
NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index

Continued...

AIRC: Australian Inventory of Industrial Chemicals  
DSL: Domestic Substances List  
NDSL: Non-Domestic Substances List  
IECSC: Inventory of Existing Chemical Substance in China  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
NLP: No-Longer Polymers  
ENCS: Existing and New Chemical Substances Inventory  
KECI: Korea Existing Chemicals Inventory  
NZIoC: New Zealand Inventory of Chemicals  
PICCS: Philippine Inventory of Chemicals and Chemical Substances  
TSCA: Toxic Substances Control Act  
TCSI: Taiwan Chemical Substance Inventory  
INSQ: Inventario Nacional de Sustancias Químicas  
NCI: National Chemical Inventory  
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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