



# CRC(NZ) Aqua Armour Aerosol

## CRC Industries (CRC Industries New Zealand)

Chemwatch: 62-4142

Version No: 6.1

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

Chemwatch Hazard Alert Code: 4

Initial Date: 23/03/2016

Revision Date: 10/12/2021

Print Date: 08/10/2025

S.GHS.NZL.EN

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

#### Product Identifier

|                               |                             |
|-------------------------------|-----------------------------|
| Product name                  | CRC(NZ) Aqua Armour Aerosol |
| Chemical Name                 | Not Applicable              |
| Synonyms                      | Not Available               |
| Proper shipping name          | AEROSOLS                    |
| Chemical formula              | Not Applicable              |
| Other means of identification | Not Available               |

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

|                          |                                                                                                                                           |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Relevant identified uses | Water proofing agent.<br>Application is by spray atomisation from a hand held aerosol pack<br>Use according to manufacturer's directions. |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|

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

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

#### Emergency telephone number

|                                     |                                              |                                     |
|-------------------------------------|----------------------------------------------|-------------------------------------|
| Association / Organisation          | CRC Industries (CRC Industries New Zealand)  | CHEMWATCH EMERGENCY RESPONSE (24/7) |
| Emergency telephone number(s)       | NZ Poisons Centre 0800 POISON (0800 764 766) | +64 800 700 112 (ID#: 62-4142)      |
| Other emergency telephone number(s) | 111 (NZ Emergency Services)                  | +61 3 9573 3188                     |

### SECTION 2 Hazards identification

#### Classification of the substance or mixture

|                                                 |                                                                                                                                                                               |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Classification <sup>[1]</sup>                   | Aerosols, Hazard Category 1, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 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, 6.9B (narcotic effects), 9.1B                                                                                                                                         |

#### Label elements

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

#### Hazard statement(s)

|                  |                                                                          |
|------------------|--------------------------------------------------------------------------|
| <b>H222+H229</b> | Extremely flammable aerosol. Pressurized container: may burst if heated. |
| <b>H336</b>      | May cause drowsiness or dizziness.                                       |
| <b>H411</b>      | Toxic to aquatic life with long lasting effects.                         |

#### 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.                                                |

#### Precautionary statement(s) Response

|                  |                                                                            |
|------------------|----------------------------------------------------------------------------|
| <b>P312</b>      | Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.      |
| <b>P391</b>      | Collect spillage.                                                          |
| <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. |
|-------------|----------------------------------------------------------------------------------------------------------------------------------|

No further product hazard information.

## SECTION 3 Composition / information on ingredients

### Substances

See section below for composition of Mixtures

### Mixtures

| CAS No        | %[weight] | Name                                          |
|---------------|-----------|-----------------------------------------------|
| 142-82-5      | 10-30     | <u>heptane</u>                                |
| 64742-48-9.   | 10-30     | <u>naphtha petroleum, heavy, hydrotreated</u> |
| Not Available | balance   | Ingredients determined not to be hazardous    |
| 68476-85-7.   | 10-30     | <u>LPG (liquefied petroleum gas)</u>          |

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

## SECTION 4 First aid measures

### Description of first aid measures

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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 continuously for at least 15 minutes with fresh running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Transport to hospital or doctor without delay.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul> |
| <b>Skin Contact</b> | <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> </ul>                                                                                                                                                                                                                                                                                                    |

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <ul style="list-style-type: none"> <li>▶ <b>DO NOT</b> use solvents.</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>  | <ul style="list-style-type: none"> <li>▶ Avoid giving milk or oils.</li> <li>▶ Avoid giving alcohol.</li> </ul> <p>Not considered a normal route of entry.</p> <ul style="list-style-type: none"> <li>▶ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.</li> </ul>                                                                                                                                                                                                                                            |

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

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

- ▶ Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> 50 mm Hg) should be intubated.
- ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- ▶ Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

Treat symptomatically.

## SECTION 5 Firefighting measures

### Extinguishing media

#### SMALL FIRE:

- ▶ Water spray, dry chemical or CO<sub>2</sub>

#### 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> </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> </ul> <p>Combustion products include:<br/>carbon monoxide (CO)<br/>carbon dioxide (CO<sub>2</sub>)<br/>other pyrolysis products typical of burning organic material.</p> <p><b>Contains low boiling substance:</b> Closed containers may rupture due to pressure buildup under fire conditions.</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> </ul> |
|---------------------|--------------------------------------------------------------------------------------|

|              |                                                                                                                                                                                                                                                                                          |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | <ul style="list-style-type: none"> <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> </ul>                    |
| Major Spills | <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> |

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

SECTION 7 Handling and storage

Precautions for safe handling

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safe handling     | <p>The conductivity of this material may make it a static accumulator., A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10 000 pS/m., Whether a liquid is nonconductive or semi-conductive, the precautions are the same., A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid.</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> </ul> |
| Other information | <ul 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.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                      |

Conditions for safe storage, including any incompatibilities

|                         |                                                                                                                               |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Suitable container      | <ul style="list-style-type: none"> <li>▶ Aerosol dispenser.</li> <li>▶ Check that containers are clearly labelled.</li> </ul> |
| Storage incompatibility | <ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> </ul>                                      |

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

| Source                                         | Ingredient                             | Material name                 | TWA                   | STEL                 | Peak          | Notes                                                 |
|------------------------------------------------|----------------------------------------|-------------------------------|-----------------------|----------------------|---------------|-------------------------------------------------------|
| New Zealand Workplace Exposure Standards (WES) | heptane                                | Heptane (n-Heptane)           | 400 ppm / 1640 mg/m3  | 2050 mg/m3 / 500 ppm | Not Available | oto - Ototoxin                                        |
| New Zealand Workplace Exposure Standards (WES) | naphtha petroleum, heavy, hydrotreated | Oil mist, mineral             | 5 mg/m3               | 10 mg/m3             | Not Available | om - Sampled by a method that does not collect vapour |
| New Zealand Workplace Exposure Standards (WES) | LPG (liquefied petroleum gas)          | LPG (Liquefied petroleum gas) | 1000 ppm / 1800 mg/m3 | Not Available        | Not Available | Not Available                                         |

| Ingredient                             | Original IDLH | Revised IDLH  |
|----------------------------------------|---------------|---------------|
| heptane                                | 750 ppm       | Not Available |
| naphtha petroleum, heavy, hydrotreated | 2,500 mg/m3   | Not Available |
| LPG (liquefied petroleum gas)          | Not Available | Not Available |

Exposure controls

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appropriate engineering controls | <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.</p> |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Individual protection measures, such as personal protective equipment |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Eye and face protection                                               | <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]</li> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.</li> <li>▶ No special equipment for minor exposure i.e. when handling small quantities.</li> <li>▶ OTHERWISE: For potentially moderate or heavy exposures:</li> <li>▶ Safety glasses with side shields.</li> <li>▶ NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.</li> <li>▶ Close fitting gas tight goggles</li> </ul> <p><b>DO NOT wear contact lenses.</b></p> <ul style="list-style-type: none"> <li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available.</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>▶ OTHERWISE:</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>▶ The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton.</li> <li>▶ Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost.</li> </ul> <p>BREITHERICK: Handbook of Reactive Chemical Hazards.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## Recommended material(s)

### GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

**"Forsberg Clothing Performance Index".**

The effect(s) of the following substance(s) are taken into account in the

**computer-generated** selection:

CRC(NZ) Aqua Armour Aerosol

| Material       | CPI |
|----------------|-----|
| NITRILE+PVC    | A   |
| HYPALON        | B   |
| NITRILE        | B   |
| NATURAL RUBBER | C   |
| NEOPRENE       | C   |
| PVC            | C   |

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

## 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 10 x ES                      | AX-AUS               | -                    | AX-PAPR-AUS / Class 1  |
| up to 50 x ES                      | -                    | AX-AUS / Class 1     | -                      |
| up to 100 x ES                     | -                    | AX-2                 | AX-PAPR-2 ^            |

^ - 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)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr.

Used cartridges should be discarded daily, regardless of the length of time used

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 highly flammable liquid with a characteristic odour.<br>Supplied as an aerosol pack. Contents under <b>PRESSURE</b> . Contains highly flammable hydrocarbon propellant. |                                                            |                |
| <b>Physical state</b>                                 | Liquid                                                                                                                                                                        | <b>Relative density (Water = 1)</b>                        | Not Available  |
| <b>Odour</b>                                          | Not Available                                                                                                                                                                 | <b>Partition coefficient n-octanol / water</b>             | Not Available  |
| <b>Odour threshold</b>                                | Not Available                                                                                                                                                                 | <b>Auto-ignition temperature (°C)</b>                      | Not Available  |
| <b>pH (as supplied)</b>                               | Not Available                                                                                                                                                                 | <b>Decomposition temperature (°C)</b>                      | Not Available  |
| <b>Melting point / freezing point (°C)</b>            | Not Available                                                                                                                                                                 | <b>Viscosity (cSt)</b>                                     | Not Available  |
| <b>Initial boiling point and boiling range (°C)</b>   | Not Available                                                                                                                                                                 | <b>Molecular weight (g/mol)</b>                            | Not Applicable |
| <b>Flash point (°C)</b>                               | <-81 (propellant)                                                                                                                                                             | <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>                      | Not Available                                                                                                                                                                 | <b>Surface Tension (dyn/cm or mN/m)</b>                    | Not Available  |
| <b>Lower Explosive Limit (%)</b>                      | Not Available                                                                                                                                                                 | <b>Volatile Component (%vol)</b>                           | Not Available  |
| <b>Vapour pressure (kPa)</b>                          | Not Available                                                                                                                                                                 | <b>Gas group</b>                                           | Not Available  |
| <b>Solubility in water</b>                            | Not Available                                                                                                                                                                 | <b>pH as a solution (1%)</b>                               | Not Available  |
| <b>Vapour density (Air = 1)</b>                       | Not Available                                                                                                                                                                 | <b>VOC g/L</b>                                             | Not Available  |
| <b>Heat of Combustion (kJ/g)</b>                      | Not Available                                                                                                                                                                 | <b>Ignition Distance (cm)</b>                              | Not Available  |
| <b>Flame Height (cm)</b>                              | Not Available                                                                                                                                                                 | <b>Flame Duration (s)</b>                                  | Not Available  |
| <b>Enclosed Space Ignition Time Equivalent (s/m3)</b> | Not Available                                                                                                                                                                 | <b>Enclosed Space Ignition Deflagration Density (g/m3)</b> | Not Available  |

## SECTION 10 Stability and reactivity

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

## SECTION 11 Toxicological information

### Information on toxicological effects

|                                         |                                                                   |
|-----------------------------------------|-------------------------------------------------------------------|
| <b>a) Acute Toxicity</b>                | Based on available data, the classification criteria are not met. |
| <b>b) Skin Irritation/Corrosion</b>     | Based on available data, the classification criteria are not met. |
| <b>c) Serious Eye Damage/Irritation</b> | Based on available data, the classification criteria are not met. |
| <b>d) Respiratory or Skin</b>           | Based on available data, the classification criteria are not met. |

|                                    |                                                                                                            |
|------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>sensitisation</b>               |                                                                                                            |
| <b>e) Mutagenicity</b>             | Based on available data, the classification criteria are not met.                                          |
| <b>f) Carcinogenicity</b>          | Based on available data, the classification criteria are not met.                                          |
| <b>g) Reproductivity</b>           | Based on available data, the classification criteria are not met.                                          |
| <b>h) STOT - Single Exposure</b>   | There is sufficient evidence to classify this material as toxic to specific organs through single exposure |
| <b>i) STOT - Repeated Exposure</b> | Based on available data, the classification criteria are not met.                                          |
| <b>j) Aspiration Hazard</b>        | Based on available data, the classification criteria are not met.                                          |

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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>Inhalation of toxic gases may cause:</p> <ul style="list-style-type: none"> <li>▶ Central Nervous System effects including depression, headache, confusion, dizziness, stupor, coma and seizures;</li> <li>▶ respiratory: acute lung swellings, shortness of breath, wheezing, rapid breathing, other symptoms and respiratory arrest;</li> <li>▶ heart: collapse, irregular heartbeats and cardiac arrest;</li> <li>▶ gastrointestinal: irritation, ulcers, nausea and vomiting (may be bloody), and abdominal pain.</li> </ul> <p>Inhalation hazard is increased at higher temperatures.</p> <p>Inhalation, by humans, of 1000 parts per million (0.1%) heptanes for 6 minutes was associated with slight dizziness; inhalation of higher concentrations for shorter periods, resulted in vertigo and inco-ordination, and hilarity. Central nervous system involvement occurs very early, even before mucous membrane irritation. Animal testing showed exposure to 1.5-2% for 30 minutes may be fatal. Brief exposure (4 minutes) to 0.5% caused nausea, loss of appetite, and a "gasoline taste" that persisted for several hours after exposure ended.</p> <p>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. 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.</p> <p><b>WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.</b></p> |
| <b>Ingestion</b>    | <p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <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>Considered an unlikely route of entry in commercial/industrial environments. The liquid may produce gastrointestinal discomfort and may be harmful if swallowed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Skin Contact</b> | <p>This material can cause inflammation of the skin on contact in some persons.</p> <p>The material may accentuate any pre-existing dermatitis condition</p> <p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.</p> <p>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.</p> <p>Spray mist may produce discomfort</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Eye</b>          | <p>There is some evidence to suggest that this material can cause eye irritation and damage in some persons.</p> <p>Not considered to be a risk because of the extreme volatility of the gas.</p> <p>Direct eye contact with petroleum hydrocarbons can be painful, and the corneal epithelium may be temporarily damaged.</p> <p>Aromatic species can cause irritation and excessive tear secretion.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Chronic</b>      | <p>Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.</p> <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>Main route of exposure to the gas in the workplace is by inhalation.</p> <p>Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                                               |                                                    |                                                                  |
|-----------------------------------------------|----------------------------------------------------|------------------------------------------------------------------|
| <b>CRC(NZ) Aqua Armour Aerosol</b>            | <b>TOXICITY</b>                                    | <b>IRRITATION</b>                                                |
|                                               | Not Available                                      | Not Available                                                    |
| <b>heptane</b>                                | <b>TOXICITY</b>                                    | <b>IRRITATION</b>                                                |
|                                               | Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>   | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                                               | Inhalation (Rat) LC50: >29.29 mg/4h <sup>[1]</sup> | Skin: adverse effect observed (irritating) <sup>[1]</sup>        |
|                                               | Oral (Rat) LD50: >5000 mg/kg <sup>[1]</sup>        | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |
| <b>naphtha petroleum, heavy, hydrotreated</b> | <b>TOXICITY</b>                                    | <b>IRRITATION</b>                                                |
|                                               | Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>   | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                                               | Inhalation (Rat) LC50: >4.42 mg/L4h <sup>[1]</sup> | Skin: adverse effect observed (irritating) <sup>[1]</sup>        |
|                                               | Oral (Rat) LD50: >4500 mg/kg <sup>[1]</sup>        |                                                                  |
| <b>LPG (liquefied petroleum gas)</b>          | <b>TOXICITY</b>                                    | <b>IRRITATION</b>                                                |
|                                               | Inhalation (Rat) LC50: 658 mg/4h <sup>[2]</sup>    | Not Available                                                    |

|                |                                                                                                                                                                                                                                    |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                |                                                                                                                                                                                                                                    |
| <b>Legend:</b> | <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> |

|                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NAPHTHA PETROLEUM, HEAVY, HYDROTREATED</b>                                   | <p>Petroleum contains aromatic (benzene, toluene, ethyl benzene, naphthalene) and aliphatic hydrocarbons (n-hexane), which can result in many detrimental health effects, including, cancer, tumour formation, hearing loss, and nervous system toxicity. Animal testing shows breathing in petroleum causes tumours of the liver and kidney; these are however not considered to be relevant in humans. Similarly, exposure to gasoline over a lifetime can cause kidney cancer in animals, but the relevance in humans is questionable.</p> <p>Most studies involving gasoline have shown that gasoline does not cause genetic mutation, including all recent studies in living human subjects (such as in petrol service station attendants).</p> <p>Animal studies show concentrations of toluene (&gt;0.1%) can cause developmental effects such as lower birth weight and developmental toxicity to the nervous system of the foetus. Other studies show no adverse effects on the foetus.</p> <p>Prolonged contact with petroleum may result in skin inflammation and make the skin more sensitive to irritation and penetration by other materials.</p> |
| <b>CRC(NZ) Aqua Armour Aerosol &amp; LPG (LIQUEFIED PETROLEUM GAS)</b>          | No significant acute toxicological data identified in literature search. inhalation of the gas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>CRC(NZ) Aqua Armour Aerosol &amp; NAPHTHA PETROLEUM, HEAVY, HYDROTREATED</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.</p>                                                                                                                                                                                                                                                                                                                                                |

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

|                                               |                                                                                                                                                                                                                                                                                                                                 |                           |                               |               |               |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------------|---------------|---------------|
| <b>CRC(NZ) Aqua Armour Aerosol</b>            | <b>Endpoint</b>                                                                                                                                                                                                                                                                                                                 | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>  | <b>Source</b> |
|                                               | Not Available                                                                                                                                                                                                                                                                                                                   | Not Available             | Not Available                 | Not Available | Not Available |
| <b>heptane</b>                                | <b>Endpoint</b>                                                                                                                                                                                                                                                                                                                 | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>  | <b>Source</b> |
|                                               | EC50                                                                                                                                                                                                                                                                                                                            | 48h                       | Crustacea                     | 0.4mg/l       | 2             |
|                                               | NOEC(ECx)                                                                                                                                                                                                                                                                                                                       | 504h                      | Crustacea                     | 0.17mg/l      | 2             |
|                                               | LC50                                                                                                                                                                                                                                                                                                                            | 96h                       | Fish                          | 0.11mg/l      | 2             |
| <b>naphtha petroleum, heavy, hydrotreated</b> | <b>Endpoint</b>                                                                                                                                                                                                                                                                                                                 | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>  | <b>Source</b> |
|                                               | EC50                                                                                                                                                                                                                                                                                                                            | 48h                       | Crustacea                     | >0.002mg/l    | 2             |
|                                               | EC50                                                                                                                                                                                                                                                                                                                            | 96h                       | Algae or other aquatic plants | 64mg/l        | 2             |
|                                               | EC50(ECx)                                                                                                                                                                                                                                                                                                                       | 48h                       | Crustacea                     | >0.002mg/l    | 2             |
| <b>LPG (liquefied petroleum gas)</b>          | <b>Endpoint</b>                                                                                                                                                                                                                                                                                                                 | <b>Test Duration (hr)</b> | <b>Species</b>                | <b>Value</b>  | <b>Source</b> |
|                                               | Not Available                                                                                                                                                                                                                                                                                                                   | Not Available             | Not Available                 | Not Available | Not Available |
| <b>Legend:</b>                                | <b>Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data</b> |                           |                               |               |               |

Harmful to aquatic organisms.  
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.

For n-Heptane: Log Kow: 4.66; Koc: 2400-8100; Half-life (hr) Air: 52.8; Half-life (hr) Surface Water: 2.9-312; Henry's atm m3 /mol: 2.06; BOD 5 (if unstated): 1.92; COD: 0.06; BCF: 340-2000; Log BCF: 2.53-3.31.

Atmospheric Fate: Breakdown of n-heptane by sunlight is not expected to be an important fate process. If released to the atmosphere, n-heptane is expected to exist entirely in the vapor phase, in ambient air. Reactions hydroxyl radicals in the atmosphere have been shown to be important.

For Propane: Koc 460. log Kow 2.36.

Henry's Law constant of 7.07x10<sup>-1</sup> atm-cu m/mole, derived from its vapour pressure, 7150 mm Hg, and water solubility, 62.4 mg/L. Estimated BCF: 13.1.

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

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|------------|-------------------------|------------------|
| heptane    | LOW                     | LOW              |

Bioaccumulative potential

| Ingredient                    | Bioaccumulation      |
|-------------------------------|----------------------|
| heptane                       | HIGH (LogKOW = 4.66) |
| LPG (liquefied petroleum gas) | LOW (LogKOW = 3.39)  |

Mobility in soil

| Ingredient | Mobility              |
|------------|-----------------------|
| heptane    | LOW (Log KOC = 274.7) |

SECTION 13 Disposal considerations

Waste treatment methods

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product / Packaging disposal | <p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"><li>▶ Reduction</li><li>▶ Reuse</li><li>▶ Recycling</li><li>▶ Disposal (if all else fails)</li></ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.</p> <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></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.

SECTION 14 Transport information

Labels Required

|  |                                                                                     |
|--|-------------------------------------------------------------------------------------|
|  |  |
|--|-------------------------------------------------------------------------------------|

|                  |                                                                                  |
|------------------|----------------------------------------------------------------------------------|
| Marine Pollutant |  |
| HAZCHEM          | Not Applicable                                                                   |

Land transport (UN)

|                                    |                           |                             |
|------------------------------------|---------------------------|-----------------------------|
| 14.1. UN number or ID number       | 1950                      |                             |
| 14.2. UN proper shipping name      | AEROSOLS                  |                             |
| 14.3. Transport hazard class(es)   | Class                     | 2.1                         |
|                                    | Subsidiary Hazard         | Not Applicable              |
| 14.4. Packing group                | Not Applicable            |                             |
| 14.5. Environmental hazard         | Environmentally hazardous |                             |
| 14.6. Special precautions for user | Special provisions        | 63; 190; 277; 327; 344; 381 |
|                                    | Limited quantity          | 1000ml                      |

Air transport (ICAO-IATA / DGR)

|                                    |                                                           |                   |
|------------------------------------|-----------------------------------------------------------|-------------------|
| 14.1. UN number                    | 1950                                                      |                   |
| 14.2. UN proper shipping name      | Aerosols, flammable (engine starting fluid)               |                   |
| 14.3. Transport hazard class(es)   | ICAO/IATA Class                                           | 2.1               |
|                                    | ICAO / IATA Subsidiary Hazard                             | Not Applicable    |
|                                    | ERG Code                                                  | 10L               |
| 14.4. Packing group                | Not Applicable                                            |                   |
| 14.5. Environmental hazard         | Environmentally hazardous                                 |                   |
| 14.6. Special precautions for user | Special provisions                                        | A1 A145 A167 A802 |
|                                    | Cargo Only Packing Instructions                           | 203               |
|                                    | Cargo Only Maximum Qty / Pack                             | 150 kg            |
|                                    | Passenger and Cargo Packing Instructions                  | Forbidden         |
|                                    | Passenger and Cargo Maximum Qty / Pack                    | Forbidden         |
|                                    | Passenger and Cargo Limited Quantity Packing Instructions | Forbidden         |
|                                    | Passenger and Cargo Limited Maximum Qty / Pack            | Forbidden         |

Sea transport (IMDG-Code / GGVSee)

|                                    |                        |                            |
|------------------------------------|------------------------|----------------------------|
| 14.1. UN number                    | 1950                   |                            |
| 14.2. UN proper shipping name      | AEROSOLS               |                            |
| 14.3. Transport hazard class(es)   | IMDG Class             | 2.1                        |
|                                    | IMDG Subsidiary Hazard | Not Applicable             |
| 14.4. Packing group                | Not Applicable         |                            |
| 14.5. Environmental hazard         | Marine Pollutant       |                            |
| 14.6. Special precautions for user | EMS Number             | F-D, S-U                   |
|                                    | Special provisions     | 63 190 277 327 344 381 959 |
|                                    | Limited Quantities     | 1000 ml                    |

14.7. Maritime transport in bulk according to IMO instruments

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

Not Applicable

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

| Product name                           | Group         |
|----------------------------------------|---------------|
| heptane                                | Not Available |
| naphtha petroleum, heavy, hydrotreated | Not Available |
| LPG (liquefied petroleum gas)          | Not Available |

14.7.3. Transport in bulk in accordance with the IGC Code

| Product name                           | Ship Type     |
|----------------------------------------|---------------|
| heptane                                | Not Available |
| naphtha petroleum, heavy, hydrotreated | Not Available |
| LPG (liquefied petroleum gas)          | 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 2017 |

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

heptane is found on the following regulatory lists

- 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)

naphtha petroleum, heavy, hydrotreated is found on the following regulatory lists

- Chemical Footprint Project - Chemicals of High Concern List
- New Zealand Approved Hazardous Substances with controls
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Land Transport Rule; Dangerous Goods 2005 - Schedule 2 Dangerous Goods in Limited Quantities and Consumer Commodities
- New Zealand Workplace Exposure Standards (WES)

LPG (liquefied petroleum gas) is found on the following regulatory lists

- Chemical Footprint Project - Chemicals of High Concern List
- New Zealand Approved Hazardous Substances with controls
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals
- New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data
- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Workplace Exposure Standards (WES)

Additional Regulatory Information

Not Applicable

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 (heptane; naphtha petroleum, heavy, hydrotreated; LPG (liquefied petroleum gas))                                                                                                                             |
| China - IECSC                                     | Yes                                                                                                                                                                                                             |
| Europe - EINEC / ELINCS / NLP                     | Yes                                                                                                                                                                                                             |
| Japan - ENCS                                      | Yes                                                                                                                                                                                                             |
| Korea - KECI                                      | Yes                                                                                                                                                                                                             |
| New Zealand - NZIoC                               | Yes                                                                                                                                                                                                             |
| Philippines - PICCS                               | Yes                                                                                                                                                                                                             |
| USA - TSCA                                        | All chemical substances in this product have been designated as TSCA Inventory 'Active'                                                                                                                         |
| Taiwan - TCSI                                     | Yes                                                                                                                                                                                                             |
| Mexico - INSQ                                     | Yes                                                                                                                                                                                                             |
| Vietnam - NCI                                     | Yes                                                                                                                                                                                                             |
| Russia - FBEPH                                    | Yes                                                                                                                                                                                                             |
| UAE - Control List (Banned/Restricted Substances) | No (heptane; naphtha petroleum, heavy, hydrotreated; LPG (liquefied petroleum gas))                                                                                                                             |
| Legend:                                           | <b>Yes = All CAS declared ingredients are on the inventory</b><br><b>No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.</b> |

SECTION 16 Other information

|               |            |
|---------------|------------|
| Revision Date | 10/12/2021 |
| Initial Date  | 23/03/2016 |

SDS Version Summary

| Version | Date of Update | Sections Updated                                                               |
|---------|----------------|--------------------------------------------------------------------------------|
| 5.1     | 01/11/2019     | One-off system update. NOTE: This may or may not change the GHS classification |
| 6.1     | 10/12/2021     | Classification change due to full database hazard calculation/update.          |

Other information

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

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

Definitions and abbreviations

- PC - TWA: Permissible Concentration-Time Weighted Average
- PC - STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists
- STEL: Short Term Exposure Limit
- TEEL: Temporary Emergency Exposure Limit,
- IDLH: Immediately Dangerous to Life or Health Concentrations

- ES: Exposure Standard
- OSF: Odour Safety Factor
- NOAEL: No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit Of Detection
- OTV: Odour Threshold Value
- BCF: BioConcentration Factors
- BEI: Biological Exposure Index
- DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration
- MARPOL: International Convention for the Prevention of Pollution from Ships
- IMSBC: International Maritime Solid Bulk Cargoes Code
- IGC: International Gas Carrier Code
- IBC: International Bulk Chemical Code
  
- AIIC: Australian Inventory of Industrial Chemicals
- DSL: Domestic Substances List
- NDSL: Non-Domestic Substances List
- IECSC: Inventory of Existing Chemical Substance in China
- EINECS: European INventory of Existing Commercial chemical Substances
- ELINCS: European List of Notified Chemical Substances
- NLP: No-Longer Polymers
- ENCS: Existing and New Chemical Substances Inventory
- KECI: Korea Existing Chemicals Inventory
- NZIoC: New Zealand Inventory of Chemicals
- PICCS: Philippine Inventory of Chemicals and Chemical Substances
- TSCA: Toxic Substances Control Act
- TCSI: Taiwan Chemical Substance Inventory
- INSQ: Inventario Nacional de Sustancias Químicas
- NCI: National Chemical Inventory
- FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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