



## SAFETY DATA SHEET (Aerosol) De-Icer

According to Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, February 2016

### SECTION 1: Identification: Product identifier and chemical identity

#### Product identifier

**Product name** (Aerosol) De-Icer

**Product No.** A39-10

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

**Application** Car maintenance product. - De-icer

**Uses advised against** For professional use only. This product is not recommended for any industrial, professional or consumer use other than the Identified uses above.

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

**Supplier** Autosmart Australia  
11 Darrambal Close  
Rathmines  
NSW 2283  
Australia  
[www.autosmartaustralia.com.au](http://www.autosmartaustralia.com.au)  
Tel: 02 49 75 14 88 (Mon to Fri, 08:00 - 16:00 AEST) (General Information. Transport Information. Mild Medical Information)  
[autosmart@autosmartaustralia.com.au](mailto:autosmart@autosmartaustralia.com.au)

**Contact Person** Mr. Russell Butler

**Manufacturer** Autosmart International Ltd..  
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Staffordshire WS14 0DH  
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[www.autosmartinternational.com](http://www.autosmartinternational.com)  
Tel: +44 (0) 1543 481616 (09:00 - 17:00)  
Fax: +44 (0) 1543 481549 (09:00 - 17:00)  
[info@autosmartinternational.com](mailto:info@autosmartinternational.com)

#### Emergency telephone number

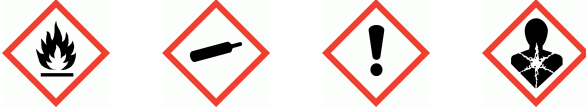
**Emergency telephone** Emergency No: +44 7808 971321 (24hrs) (Autosmart International, UK)  
General Information. Transport Information. Mild medical Information:-  
Tel: 02 49 75 14 88 (Mon to Fri, 08:00 - 16:00 AEST)

**National emergency telephone number** Poison Information Hotline: 13 11 26

### SECTION 2: Hazard(s) identification

#### Classification of the substance or mixture

**Physical hazards** Aerosol 1 - H222, H229 Press. Gas, Compressed - H280

**(Aerosol) De-Icer****Health hazards** Eye Irrit. 2A - H319 STOT SE 3 - H336 STOT RE 2 - H373**Environmental hazards** Not Classified**Label elements****Hazard pictograms****Signal word** DANGER

**Hazard statements**

H222 Extremely flammable aerosol.  
 H229 Pressurised container: may burst if heated.  
 H280 Contains gas under pressure; may explode if heated.  
 H319 Causes serious eye irritation.  
 H336 May cause drowsiness or dizziness.  
 H373 May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements**

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. - No smoking.  
 P211 Do not spray on an open flame or other ignition source.  
 P251 Pressurized container: Do not pierce or burn, even after use.  
 P264 Wash contaminated skin thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

**Supplemental label information**

For professional users only.  
 AUH066 Repeated exposure may cause skin dryness or cracking.

**Contains** Isopropyl alcohol, Ethanediol**Other hazards**

This product does not contain any substances classified as PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative).

**SECTION 3: Composition and information on ingredients****Mixtures**

**Isopropyl alcohol** 30<60%

CAS number: 67-63-0

Substance with a Community workplace exposure limit.

**Classification**

Flam. Liq. 2 - H225

Eye Irrit. 2A - H319

STOT SE 3 - H336

**PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS** 20<30%

CAS number: 68476-85-7

Substance with a Community workplace exposure limit.

**Classification**

Flam. Gas 1 - H220

Press. Gas, Liquefied - H280

**(Aerosol) De-Icer**

<b>Ethanediol</b> <span style="float: right;"><b>15&lt;20%</b></span> CAS number: 107-21-1 Substance with National workplace exposure limits.
<b>Classification</b> Acute Tox. 4 - H302 STOT RE 2 - H373
<b>2,2',2"-nitrilotriethanol</b> <span style="float: right;"><b>0.2&lt;0.5%</b></span> CAS number: 102-71-6
<b>Classification</b> Not Classified
<b>SODIUM NITRITE</b> <span style="float: right;"><b>0.1&lt;0.2%</b></span> CAS number: 7632-00-0 M factor (Acute) = 1
<b>Classification</b> Ox. Sol. 3 - H272 Acute Tox. 3 - H301 Eye Irrit. 2A - H319 Aquatic Acute 1 - H400

The full text for all hazard statements is displayed in Section 16.

#### **SECTION 4: First aid measures**

##### **Description of first aid measures**

<b>General information</b>	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
<b>Skin Contact</b>	Rinse with water.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.

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**Protection of first aiders** First aid personnel should wear appropriate protective equipment during any rescue. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

### Most important symptoms and effects, both acute and delayed

**General information** See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

**Inhalation** A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.

**Ingestion** Due to the physical nature of this product, it is unlikely that ingestion will occur.

**Skin contact** Repeated exposure may cause skin dryness or cracking.

**Eye contact** Irritating to eyes.

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

**Notes for the doctor** Treat symptomatically.

## SECTION 5: Firefighting measures

### Extinguishing media

**Suitable extinguishing media** The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

### Special hazards arising from the substance or mixture

**Specific hazards** Containers can burst violently or explode when heated, due to excessive pressure build-up. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant.

**Hazardous combustion products** Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

### Advice for firefighters

**Protective actions during firefighting** Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to Australia/New Zealand Standards AS/NZS 4967 (for clothing) AS/NZS 1801 (for helmets), AS/NZS 4821 (for protective boots), AS/NZS 1801 (for protective gloves) will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

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### **Personal precautions**

No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Evacuate area. Risk of explosion. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated. Avoid inhalation of dust and vapours. Use suitable respiratory protection if ventilation is inadequate.

### **Environmental precautions**

#### **Environmental precautions**

Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

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

#### **Methods for cleaning up**

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Do not allow material to enter confined spaces, due to the risk of explosion. Approach the spillage from upwind. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### **Reference to other sections**

#### **Reference to other sections**

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

## **SECTION 7: Handling and storage, including how the chemical may be safely used**

### **Precautions for safe handling**

#### **Usage precautions**

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Avoid exposing aerosol containers to high temperatures or direct sunlight. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin. Avoid contact with eyes. Avoid inhalation of vapours and spray/mists.

#### **Advice on general occupational hygiene**

Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

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

#### **Storage precautions**

Store in accordance with local regulations. Keep away from oxidising materials, heat and flames. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Protect from sunlight. Do not store near heat sources or expose to high temperatures. Do not expose to temperatures exceeding 50 °C/ 122 °F. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

#### **Storage class**

Miscellaneous hazardous material storage.

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### Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.

### SECTION 8: Exposure controls and personal protection

#### Control parameters

#### Occupational exposure limits

##### Isopropyl alcohol

Long-term exposure limit (8-hour TWA): 400 ppm 983 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): 500 ppm 1230 mg/m<sup>3</sup>

##### PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS

Long-term exposure limit (8-hour TWA): 1000 ppm 1800 mg/m<sup>3</sup>

##### Ethanediol

Long-term exposure limit (8-hour TWA): 10 mg/m<sup>3</sup> particulates

Sk

Long-term exposure limit (8-hour TWA): 20 ppm 52 mg/m<sup>3</sup> vapour

Short-term exposure limit (15-minute): 40 ppm 104 mg/m<sup>3</sup> vapour

Sk

##### 2,2',2"-nitrioltriethanol

Long-term exposure limit (8-hour TWA): 5 mg/m<sup>3</sup>

Sen

Sk = Absorption through the skin may be a significant source of exposure.

Sen = Respiratory and/or skin sensitiser.

#### Exposure controls

##### Protective equipment



##### Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.

##### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with Australia/New Zealand Standard AS/NZS 1337. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

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<b>Hand protection</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. The breakthrough time for any glove material may be different for different glove manufacturers. To protect hands from chemicals, gloves should comply with Australia/New Zealand Standard AS/NZS 2161. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended. The choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. When used with mixtures, the protection time of gloves cannot be accurately estimated. Gloves made from the following material may provide suitable chemical protection: Nitrile rubber. Thickness: >0.2mm The selected gloves should have a breakthrough time of at least 0.5 hours. Glove thickness is not necessarily a good measure of glove resistance as the permeation rate will depend on the exact glove composition. Repeated exposure to chemicals will degrade the ability of the glove to provide resistance to chemicals. Specific work environments and material handling practices may vary, therefore safety procedures should be developed for each intended application. Use thin cotton gloves inside natural rubber gloves if there is an allergy risk to natural rubber.
<b>Other skin and body protection</b>	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
<b>Hygiene measures</b>	Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.
<b>Respiratory protection</b>	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and complies with Australia/New Zealand Standard AS/NZS 1716. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with Australia/New Zealand Standard AS/NZS 1716. Full face mask respirators with replaceable filter cartridges should comply with Australia/New Zealand Standard AS/NZS 1716. Half mask and quarter mask respirators with replaceable filter cartridges should comply with Australia/New Zealand Standard AS/NZS 1716.
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

<b>Appearance</b>	Aerosol. Clear liquid.
<b>Colour</b>	Blue.
<b>Odour</b>	Alcoholic.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not applicable.
<b>Melting point</b>	Not determined.
<b>Initial boiling point and range</b>	-40 ~ -2°C @ 1013 hPa

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<b>Flash point</b>	-60°C Closed cup.
<b>Evaporation rate</b>	Not available.
<b>Flammability Limit - Lower(%)</b>	Lower flammable/explosive limit: 1.4 % Upper flammable/explosive limit: 10.9 %
<b>Vapour pressure</b>	590 - 1760 kPa @ °C
<b>Vapour density</b>	~ 1.5 @ 15°C
<b>Relative density</b>	~ 0.510 @ 15°C
<b>Solubility(ies)</b>	Soluble in the following materials: Organic solvents. Insoluble in water.
<b>Partition coefficient</b>	log Pow: 2.3 - 2.8
<b>Auto-ignition temperature</b>	365°C
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	Not determined.
<b>Oxidising properties</b>	Not applicable.
<b>Comments</b>	Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures. Information given is applicable to the major ingredient.
<b>Volatile organic compound</b>	This product contains a maximum VOC content of 433 g/litre.

**SECTION 10: Stability and reactivity**

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
<b>Possibility of hazardous reactions</b>	The following materials may react strongly with the product: Oxidising agents.
<b>Conditions to avoid</b>	Avoid exposing aerosol containers to high temperatures or direct sunlight. Pressurised container: may burst if heated
<b>Materials to avoid</b>	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
<b>Hazardous decomposition products</b>	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

**SECTION 11: Toxicological information****Information on toxicological effects**

<b>Other health effects</b>	There is no evidence that the product can cause cancer.
<b><u>Acute toxicity - oral</u></b>	
<b>Notes (oral LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b>ATE oral (mg/kg)</b>	2,983.29
<b><u>Acute toxicity - dermal</u></b>	
<b>Notes (dermal LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.



**(Aerosol) De-Icer****Acute toxicity - inhalation**

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

**Skin corrosion/irritation**

**Animal data** Based on available data the classification criteria are not met.

**Human skin model test** Scientifically unjustified.

**Extreme pH** Scientifically unjustified.

**Serious eye damage/irritation**

**Serious eye damage/irritation** Causes serious eye irritation.

**Respiratory sensitisation**

**Respiratory sensitisation** Based on available data the classification criteria are not met.

**Skin sensitisation**

**Skin sensitisation** Based on available data the classification criteria are not met.

**Germ cell mutagenicity**

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

**Carcinogenicity**

**Carcinogenicity** Based on available data the classification criteria are not met.

**IARC carcinogenicity**

Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable as to its carcinogenicity to humans.

**Reproductive toxicity**

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development** Based on available data the classification criteria are not met.

**Specific target organ toxicity - single exposure**

**STOT - single exposure** STOT SE 3 - H336 May cause drowsiness or dizziness.

**Target organs** Central nervous system

**Specific target organ toxicity - repeated exposure**

**STOT - repeated exposure** STOT RE 2 - H373 May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard**

**Aspiration hazard** Based on available data the classification criteria are not met.

**General information**

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

**Inhalation**

A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.

**Ingestion**

Due to the physical nature of this product, it is unlikely that ingestion will occur.

**Skin Contact**

Repeated exposure may cause skin dryness or cracking.

**Eye contact**

Irritating to eyes.

**Acute and chronic health hazards**

Because of the product's quantity and composition, the health hazard is regarded as low.

**(Aerosol) De-Icer**

<b>Route of exposure</b>	Ingestion Inhalation Skin and/or eye contact
<b>Target Organs</b>	Central nervous system
<b>Medical Symptoms</b>	No specific symptoms noted, but this chemical may still have adverse health impact, either in general or on certain individuals.
<b>Medical considerations</b>	Skin disorders and allergies.

**Toxicological information on ingredients.****Isopropyl alcohol****Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 5,840.0

**Species** Rat

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

**Acute toxicity - dermal**

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 16.4

**Species** Rabbit

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

**Acute toxicity - inhalation**

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

**Skin corrosion/irritation**

**Animal data** Based on available data the classification criteria are not met.

**Serious eye damage/irritation**

**Serious eye damage/irritation** Causes serious eye irritation.

**Respiratory sensitisation**

**Respiratory sensitisation** Based on available data the classification criteria are not met.

**Skin sensitisation**

**Skin sensitisation** Based on available data the classification criteria are not met.

**Germ cell mutagenicity**

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

**Carcinogenicity**

**Carcinogenicity** Based on available data the classification criteria are not met.

**IARC carcinogenicity**

IARC Group 3 Not classifiable as to its carcinogenicity to humans.

**Reproductive toxicity**

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development** Based on available data the classification criteria are not met.

**(Aerosol) De-Icer****Specific target organ toxicity - single exposure**

**STOT - single exposure** STOT SE 3 - H336 May cause drowsiness or dizziness.

**Target organs** Central nervous system

**Specific target organ toxicity - repeated exposure**

**STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

**Aspiration hazard**

**Aspiration hazard** Based on available data the classification criteria are not met. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

**General information**

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

**Inhalation**

A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.

**Ingestion**

A single exposure may cause the following adverse effects: Confusion, agitation and/or excitation. Symptoms following overexposure may include the following: May cause nausea, headache, dizziness and intoxication. Unconsciousness.

**Skin Contact**

A single exposure may cause the following adverse effects: Temporary irritation. Prolonged contact may cause dryness of the skin.

**Eye contact**

Irritating to eyes.

**Route of exposure**

Ingestion Inhalation Skin and/or eye contact

**Target Organs**

Central nervous system

**PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS****Skin corrosion/irritation**

**Human skin model test** Scientifically unjustified.

**Extreme pH** Scientifically unjustified.

**Germ cell mutagenicity**

**Genotoxicity - in vivo** This substance has no evidence of mutagenic properties.

**Reproductive toxicity**

**Reproductive toxicity - fertility** Does not contain any substances known to be toxic to reproduction.

**Specific target organ toxicity - single exposure**

**STOT - single exposure** Not classified as a specific target organ toxicant after a single exposure.

**Target organs** Central nervous system

**Specific target organ toxicity - repeated exposure**

**STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

**Target organs** Central nervous system

**Aspiration hazard**

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<b>Aspiration hazard</b>	Based on available data the classification criteria are not met.
<b>General information</b>	Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.
<b>Inhalation</b>	Vapours may cause headache, fatigue, dizziness and nausea. Vapour may affect central nervous system. Symptoms following overexposure may include the following: Headache. Nausea, vomiting. Intoxication. May cause discomfort. Vapour may irritate respiratory system/lungs.
<b>Ingestion</b>	May cause stomach pain or vomiting. Gastrointestinal symptoms, including upset stomach. May cause discomfort if swallowed. No harmful effects expected from quantities likely to be ingested by accident.
<b>Skin Contact</b>	May cause defatting of the skin but is not an irritant.
<b>Eye contact</b>	Vapour or spray in the eyes may cause irritation and smarting.
<b>Acute and chronic health hazards</b>	Because of the product's quantity and composition, the health hazard is regarded as low.
<b>Route of exposure</b>	Inhalation Ingestion. Skin and/or eye contact

**Ethanediol****Acute toxicity - dermal**

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 35,000.0

**Species** Mouse

**Serious eye damage/irritation**

**Serious eye damage/irritation** Not irritating.

**Respiratory sensitisation**

**Respiratory sensitisation** Not sensitising.

**Skin sensitisation**

**Skin sensitisation** Not sensitising.

**Germ cell mutagenicity**

**Genotoxicity - in vitro** Gene mutation:: Negative. This substance has no evidence of mutagenic properties.

**Carcinogenicity**

**Carcinogenicity** Not available.

**Reproductive toxicity**

**Reproductive toxicity - fertility** Fertility: - > 1000 mg/kg, Oral, Rat Does not contain any substances known to be toxic to reproduction.

**Reproductive toxicity - development** Not available.

**Specific target organ toxicity - single exposure**

**STOT - single exposure** Not available.

**(Aerosol) De-Icer****Specific target organ toxicity - repeated exposure**

STOT - repeated exposure NOAEL 200 mg/kg, Oral, Rat

Ingestion

Harmful if swallowed.

**SECTION 12: Ecological information****Ecotoxicity**

Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

**Ecological information on ingredients.****Isopropyl alcohol****Ecotoxicity**

Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

**PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS****Ecotoxicity**

The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

**Ethenediol****Ecotoxicity**

The product is not expected to be hazardous to the environment.

**Toxicity**

Based on available data the classification criteria are not met.

**Acute aquatic toxicity****Acute toxicity - fish**

Not determined.

**Acute toxicity - aquatic invertebrates**

Not determined.

**Acute toxicity - aquatic plants**

Not determined.

**Acute toxicity - microorganisms**

Not determined.

**Acute toxicity - terrestrial**

Not determined.

**Ecological information on ingredients.****Isopropyl alcohol****Toxicity**

Based on available data the classification criteria are not met.

**Acute aquatic toxicity****Acute toxicity - fish**

LC50, 96 hours: ~ 9640 mg/l, Pimephales promelas (Fat-head Minnow)

**Acute toxicity - aquatic invertebrates**EC<sub>50</sub>, >: > 1000 mg/l, Daphnia magna**Acute toxicity - aquatic plants**EC<sub>50</sub>, 72 hours: > 1000 mg/l, Scenedesmus subspicatus**Acute toxicity - microorganisms**EC<sub>50</sub>, >: > 1000 mg/l, Activated sludge

**(Aerosol) De-Icer****PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS****Acute aquatic toxicity**

<b>Acute toxicity - fish</b>	Not determined.
<b>Acute toxicity - aquatic invertebrates</b>	Not determined.
<b>Acute toxicity - aquatic plants</b>	Not determined.
<b>Acute toxicity - microorganisms</b>	Not determined.
<b>Acute toxicity - terrestrial</b>	Not determined.

**Ethanediol****Acute aquatic toxicity**

<b>Acute toxicity - fish</b>	LC50, 96 hours: ~ 72860 mg/l, Pimephales promelas (Fat-head Minnow)
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: > 100 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 96 hours: > 6500 mg/l, Selenastrum capricornutum
<b>Acute toxicity - microorganisms</b>	EC20, 30 minutes: > 1995 mg/l, Activated sludge

**Chronic aquatic toxicity**

<b>Chronic toxicity - fish early life stage</b>	NOEC, ~: ~ 15380 mg/l, Pimephales promelas (Fat-head Minnow)
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**SODIUM NITRITE****Acute aquatic toxicity**

<b>LE(C)<sub>50</sub></b>	0.1 < L(E)C50 ≤ 1
<b>M factor (Acute)</b>	1

**Persistence and degradability**

**Persistence and degradability** The degradability of the product is not known.

**Ecological information on ingredients.****Isopropyl alcohol**

<b>Persistence and degradability</b>	The product is readily biodegradable.
<b>Biodegradation</b>	Degradation (%) - 95: 21 days
<b>Biological oxygen demand</b>	~ 1171 g O <sub>2</sub> /g substance
<b>Chemical oxygen demand</b>	~ 2294 g O <sub>2</sub> /g substance

**PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS**

**(Aerosol) De-Icer**

**Persistence and degradability** Volatile substances are degraded in the atmosphere within a few days.

**Ethanediol**

**Persistence and degradability** The product is biodegradable.

**Bioaccumulative potential**

**Bioaccumulative Potential** No data available on bioaccumulation.

**Partition coefficient** log Pow: 2.3 - 2.8

**Ecological information on ingredients.****Isopropyl alcohol**

**Bioaccumulative Potential** No data available on bioaccumulation.

**Partition coefficient** log Pow: 0.05

**PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS**

**Bioaccumulative Potential** Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

**Partition coefficient** log Pow: ~ 2.3 - 2.8

**Ethanediol**

**Bioaccumulative Potential** The product does not contain any substances expected to be bioaccumulating.

**Partition coefficient** log Pow: 1.93

**Mobility in soil**

**Mobility** The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

**Ecological information on ingredients.****Isopropyl alcohol**

**Mobility** The product is water-soluble and may spread in water systems. Volatile liquid. The product contains organic solvents which will evaporate easily from all surfaces.

**Adsorption/desorption coefficient** Water - Koc: ~ 1.1 @ °C

**Henry's law constant** 0.00000338 atm m<sup>3</sup>/mol @ 25°C

**PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS**

**Mobility** The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

**Ethanediol**

**Mobility** The product is soluble in water. Mobile.

**(Aerosol) De-Icer**

**Adsorption/desorption coefficient** Water - Koc: ~ 1 @ 20°C

**Henry's law constant** ~ 0.1327 atm m<sup>3</sup>/mol @ 20°C

**Other adverse effects**

**Other adverse effects** None known.

**Ecological information on ingredients.****Isopropyl alcohol**

**Other adverse effects** None known.

**PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS**

**Other adverse effects** None known.

**Ethenediol**

**Other adverse effects** None known.

**SECTION 13: Disposal considerations****Waste treatment methods****General information**

The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods**

Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.

**SECTION 14: Transport information****General**

For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

**UN number**

**UN No. (ADG)** 1950

**UN No. (IMDG)** 1950

**UN No. (ICAO)** 1950

**UN proper shipping name**

**Proper shipping name (ADG)** AEROSOLS

**Proper shipping name (IMDG)** AEROSOLS

**Proper shipping name (ICAO)** AEROSOLS



**(Aerosol) De-Icer****Transport hazard class(es)**

<b>ADG class</b>	2.1
<b>ADG label</b>	2.1
<b>IMDG class</b>	2.1
<b>ICAO class/division</b>	2.1

**Transport labels****Packing group**

Not applicable.

**Environmental hazards****Environmentally hazardous substance/marine pollutant**

No.

**Special precautions for user**

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**EmS** F-D, S-U

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

**SECTION 15: Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Schedule (SUSMP)** Schedule 5. Caution.

**Inventories****Australia - AICS**

All the ingredients are listed or exempt.

**SECTION 16: Any other relevant information**

<b>General information</b>	This product has been manufactured under ISO 9001 and ISO 14001 Quality and Environmental Management Systems.
<b>Training advice</b>	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
<b>Revision comments</b>	NOTE: Lines within the margin indicate significant changes from the previous revision.
<b>Issued by</b>	Prepared by Autosmart International Ltd, Lynn Lane, Shenstone, Lichfield, Staffordshire, WS14 0DH, Great Britain. www.autosmartinternational.com rbutler@autosmart.co.uk Tel +44 (0)1543 481616
<b>Revision date</b>	13/05/2021

**(Aerosol) De-Icer**

<b>Revision</b>	9
<b>Supersedes date</b>	15/10/2020
<b>SDS No.</b>	10120
<b>SDS status</b>	Approved.
<b>Hazard statements in full</b>	H220 Extremely flammable gas. H225 Highly flammable liquid and vapour. H229 Pressurised container: may burst if heated. H272 May intensify fire; oxidizer. H280 Contains gas under pressure; may explode if heated. H301 Toxic if swallowed. H302 Harmful if swallowed. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H373 May cause damage to organs through prolonged or repeated exposure. H373 May cause damage to organs through prolonged or repeated exposure if swallowed. H400 Very toxic to aquatic life.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.