




**Power De-Icer
B110**

Date of compilation: 23/08/2023 Revised: 19/07/2024 Version: 2 (Replaced 1)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** Power De-Icer
B110
- Other means of identification:**
B3200/04
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: De-icer. For professional users only.
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
Nielsen Chemicals
Rawdon Road, Moira,
DE12 6DA, Swadlincote - Derbyshire - United Kingdom
Phone: 01283 222277
info@nielsenchemicals.com
www.nielsenchemicals.com
- 1.4 Emergency telephone number:** For 24/7 multilingual advice for spill, leak, fire, exposure, or accident Call CHEMTREC at +44 20 3885 0382 / +44 20 3807 3798 and provide CCN 1018675; NPIS: 0844 892 0111 (healthcare professionals only) or NHS 111.

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):
Classification of this product has been carried out in accordance with GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567).
Aerosol 1: Pressurised container: May burst if heated., H229
Aerosol 1: Flammable aerosols, Category 1, H222
Eye Irrit. 2: Eye irritation, Category 2, H319
STOT RE 2: Specific target organ toxicity — Repeated exposure, Hazard Category 2 (Oral), H373
- 2.2 Label elements:**
GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):
Danger
-   
- Hazard statements:**
Aerosol 1: H229 - Pressurised container: May burst if heated.
Aerosol 1: H222 - Extremely flammable aerosol.
Eye Irrit. 2: H319 - Causes serious eye irritation.
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral). Organs affected: Kidneys.
- Precautionary statements:**
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211: Do not spray on an open flame or other ignition source.
P251: Do not pierce or burn, even after use.
P261: Avoid breathing spray
P280: Wear protective gloves/eye protection/face protection.
P314: Get medical advice/attention if you feel unwell.
P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
P501: Dispose of the contents and/or its container in line with regulations on dangerous waste or packaging and waste packaging respectively.
- Substances that contribute to the classification**
Ethanediol (CAS: 107-21-1)
- 2.3 Other hazards:**
Product does not meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Ethylene glycol/s

Components:

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 64-17-5	ethanol Eye Irrit. 2: H319; Flam. Liq. 2: H225 - Danger	50 - <75 %
CAS: 68476-85-7	Petroleum gases, liquefied, < 0.1 % EC 203-450-8 Flam. Gas 1A: H220; Press. Gas: H280 - Danger	25 - <50 %
CAS: 107-21-1	Ethenediol Acute Tox. 4: H302; STOT RE 2: H373 - Warning	10 - <25 %
CAS: 67-63-0	propan-2-ol Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336 - Danger	1 - <3 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity		Genus
Ethenediol CAS: 107-21-1	LD50 oral	500 mg/kg (ATEi)	
	LD50 dermal	Not relevant	
	LC50 inhalation	Not relevant	

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety Data Sheet

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:

Not relevant

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

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SECTION 5: FIREFIGHTING MEASURES (continued)**Suitable extinguishing media:**

Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC)

Unsuitable extinguishing media:

Water jet

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...).

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures:****For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling:****A.- General precautions for safe use**

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

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SECTION 7: HANDLING AND STORAGE (continued)

A.- Specific storage requirements

Minimum Temp.: 4 °C

Maximum Temp.: 40 °C

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

EH40/2005 Workplace exposure limits, fourth edition, published 2020:

Identification	Occupational exposure limits		
	WEL (8h)	WEL (15 min)	WEL (8h)
propan-2-ol CAS: 67-63-0	400 ppm	500 ppm	999 mg/m ³
ethanol CAS: 64-17-5	1000 ppm		1920 mg/m ³
Ethanediol ⁽¹⁾ CAS: 107-21-1	20 ppm	40 ppm	52 mg/m ³
Petroleum gases, liquefied, < 0.1 % EC 203-450-8 CAS: 68476-85-7	1000 ppm	1250 ppm	1750 mg/m ³

⁽¹⁾ Skin

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
ethanol CAS: 64-17-5 EC: 200-578-6	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	343 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	950 mg/m ³	Not relevant
Petroleum gases, liquefied, < 0.1 % EC 203-450-8 CAS: 68476-85-7 EC: 270-704-2	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	23.4 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	Not relevant
Ethanediol CAS: 107-21-1 EC: 203-473-3	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	106 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	35 mg/m ³
propan-2-ol CAS: 67-63-0 EC: 200-661-7	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	888 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	500 mg/m ³	Not relevant

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
ethanol CAS: 64-17-5 EC: 200-578-6	Oral	Not relevant	Not relevant	87 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	206 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	114 mg/m ³	Not relevant
Ethanediol CAS: 107-21-1 EC: 203-473-3	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	53 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	7 mg/m ³
propan-2-ol CAS: 67-63-0 EC: 200-661-7	Oral	Not relevant	Not relevant	26 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	319 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	89 mg/m ³	Not relevant

PNEC:

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)


Identification				
ethanol CAS: 64-17-5 EC: 200-578-6	STP	580 mg/L	Fresh water	0.96 mg/L
	Soil	0.63 mg/kg	Marine water	0.79 mg/L
	Intermittent	2.75 mg/L	Sediment (Fresh water)	3.6 mg/kg
	Oral	0.38 g/kg	Sediment (Marine water)	2.9 mg/kg
Ethanediol CAS: 107-21-1 EC: 203-473-3	STP	199.5 mg/L	Fresh water	10 mg/L
	Soil	1.53 mg/kg	Marine water	1 mg/L
	Intermittent	10 mg/L	Sediment (Fresh water)	37 mg/kg
	Oral	Not relevant	Sediment (Marine water)	3.7 mg/kg
propan-2-ol CAS: 67-63-0 EC: 200-661-7	STP	2251 mg/L	Fresh water	140.9 mg/L
	Soil	28 mg/kg	Marine water	140.9 mg/L
	Intermittent	140.9 mg/L	Sediment (Fresh water)	552 mg/kg
	Oral	0.16 g/kg	Sediment (Marine water)	552 mg/kg

8.2 Exposure controls:


A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<UKCA marking>> or <<CE marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection


Pictogram	PPE	Remarks
 Mandatory respiratory tract protection	Filter mask for gases, vapours and particles (Filter type: A2, FFP1)	Replace when an increase in resistance to breathing is observed and/or a smell or taste of the contaminant is detected.

C.- Specific protection for the hands


Pictogram	PPE	Remarks
 Mandatory hand protection	Protective gloves against minor risks (Material: Nitrile, Breakthrough time: > 480 min, Thickness: 0.062 mm, Conditions of use: Splashing)	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN ISO 21420:2020 and EN ISO 374-1:2016+A1:2018

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection


Pictogram	PPE	Remarks
	Work clothing	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
 Mandatory complete body protection	Antistatic and fireproof protective clothing	Limited protection against flames.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Remarks
 Mandatory foot protection	Safety footwear with antistatic and heat resistant properties	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:

Physical state at 20 °C: Aerosol
 Appearance: Transparent
 Colour: Colourless
 Odour: Hydrocarbon
 Odour threshold: Not relevant *

Volatility:

Boiling point at atmospheric pressure: -42 °C (Propellant)
 Vapour pressure at 20 °C: Not relevant *
 Vapour pressure at 50 °C: <300000 Pa (300 kPa)
 Evaporation rate at 20 °C: Not relevant *

Product description:

Density at 20 °C: Not relevant *
 Relative density at 20 °C: Not relevant *
 Dynamic viscosity at 20 °C: Not relevant *
 Kinematic viscosity at 20 °C: Not relevant *
 Kinematic viscosity at 40 °C: Not relevant *
 Concentration: Not relevant *
 pH: Not relevant *
 Vapour density at 20 °C: Not relevant *
 Partition coefficient n-octanol/water 20 °C: Not relevant *
 Solubility in water at 20 °C: Not relevant *
 Solubility properties: Not relevant *
 Decomposition temperature: Not relevant *
 Melting point/freezing point: Not relevant *
 Recipient pressure: 349971 - 449963 Pa (3.5 - 4.5 bar)

Flammability:

Flash Point: -104 °C (Propellant)

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Flammability (solid, gas): Not relevant *
 Autoignition temperature: Not relevant *
 Lower flammability limit: Not relevant *
 Upper flammability limit: Not relevant *

Particle characteristics:

Median equivalent diameter: Non-applicable

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties: Not relevant *
 Oxidising properties: Not relevant *
 Corrosive to metals: Not relevant *
 Heat of combustion: Not relevant *
 Aerosols-total percentage (by mass) of flammable components: Not relevant *

Other safety characteristics:

Surface tension at 20 °C: Not relevant *
 Refraction index: Not relevant *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness. Organs affected: Kidneys.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Not relevant

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
propan-2-ol CAS: 67-63-0	LD50 oral	5280 mg/kg	Rat
	LD50 dermal	12800 mg/kg	Rat
	LC50 inhalation	72.6 mg/L (4 h)	Rat
ethanol CAS: 64-17-5	LD50 oral	6200 mg/kg	Rat
	LD50 dermal	20000 mg/kg	Rabbit
	LC50 inhalation	124.7 mg/L (4 h)	Rat
Ethanediol CAS: 107-21-1	LD50 oral	500 mg/kg (ATEi)	
	LD50 dermal	>3500 mg/kg	Rabbit
	LC50 inhalation	>20 mg/L	
Petroleum gases, liquefied, < 0.1 % EC 203-450-8 CAS: 68476-85-7	LD50 oral	>5000 mg/kg	
	LD50 dermal	>5000 mg/kg	
	LC50 inhalation	>5 mg/L	

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SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
ethanol CAS: 64-17-5	LC50	11000 mg/L (96 h)	Alburnus alburnus	Fish
	EC50	9268 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1450 mg/L (192 h)	Microcystis aeruginosa	Algae
Ethanediol CAS: 107-21-1	LC50	53000 mg/L (96 h)	Pimephales promelas	Fish
	EC50	51000 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	24000 mg/L (168 h)	Selenastrum capricornutum	Algae
propan-2-ol CAS: 67-63-0	LC50	9640 mg/L (96 h)	Pimephales promelas	Fish
	EC50	13299 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	1000 mg/L (72 h)	Scenedesmus subspicatus	Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
ethanol CAS: 64-17-5	NOEC	250 mg/L	Danio rerio	Fish
	NOEC	2 mg/L	Ceriodaphnia dubia	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
ethanol CAS: 64-17-5	BOD5	Not relevant	Concentration	100 mg/L
	COD	Not relevant	Period	14 days
	BOD5/COD	Not relevant	% Biodegradable	89 %
Ethanediol CAS: 107-21-1	BOD5	0.47 g O2/g	Concentration	100 mg/L
	COD	1.29 g O2/g	Period	14 days
	BOD5/COD	0.36	% Biodegradable	90 %
propan-2-ol CAS: 67-63-0	BOD5	1.19 g O2/g	Concentration	100 mg/L
	COD	2.23 g O2/g	Period	14 days
	BOD5/COD	0.53	% Biodegradable	86 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
ethanol CAS: 64-17-5	BCF	3
	Pow Log	-0.31
	Potential	Low
Ethanediol CAS: 107-21-1	BCF	10
	Pow Log	-1.36
	Potential	Low
propan-2-ol CAS: 67-63-0	BCF	3
	Pow Log	0.05
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
ethanol CAS: 64-17-5	Koc	1	Henry	4.61E-1 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2.339E-2 N/m (25 °C)	Moist soil	Yes

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Absorption/desorption		Volatility	
Ethanediol CAS: 107-21-1	Koc	0	Henry	1.327E-1 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	4.989E-2 N/m (25 °C)	Moist soil	No
propan-2-ol CAS: 67-63-0	Koc	1.5	Henry	8.207E-1 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	Yes
	Surface tension	2.24E-2 N/m (25 °C)	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class
16 05 04*	gases in pressure containers (including halons) containing hazardous substances	Hazardous

Type of waste:

HP3 Flammable, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste (England & Wales) Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of UK REACH the provisions related to waste management are stated:

UK legislation: The Waste (England & Wales) Regulations 2011.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:



- 14.1 UN number:** UN1950
14.2 UN proper shipping name: AEROSOLS
14.3 Transport hazard class(es): 2
 Labels: 2.1
14.4 Packing group: N/A
14.5 Environmental hazards: No
14.6 Special precautions for user
 Tunnel restriction code: D
 Physico-Chemical properties: see section 9
 Limited quantities: 1 L
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not relevant

Transport of dangerous goods by sea:

With regard to IMDG 41-22:

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SECTION 14: TRANSPORT INFORMATION (continued)



14.1 UN number:	UN1950
14.2 UN proper shipping name:	AEROSOLS
14.3 Transport hazard class(es):	2
Labels:	2.1
14.4 Packing group:	N/A
14.5 Marine pollutant:	No
14.6 Special precautions for user	
Special regulations:	63, 959, 190, 277, 327, 344
EmS Codes:	F-D, S-U
Physico-Chemical properties:	see section 9
Limited quantities:	1 L
Segregation group:	Not relevant
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2024:



14.1 UN number:	UN1950
14.2 UN proper shipping name:	AEROSOLS
14.3 Transport hazard class(es):	2
Labels:	2.1
14.4 Packing group:	N/A
14.5 Environmental hazards:	No
14.6 Special precautions for user	
Physico-Chemical properties:	see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Not relevant

SECTION 15: REGULATORY INFORMATION

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

- Substances listed in UK candidate list of substances of very high concern (SVHCs): Not relevant
- Substances listed in UK REACH Authorisation List (Annex 14): Not relevant

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc):

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

- The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.
- The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.
- Control of Substances Hazardous to Health Regulations 2002 (as amended)
- EH40/2005 Workplace exposure limits.
- The Aerosol Dispensers Regulations 2009
- The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019: SCHEDULE 13 -Amendment of the Aerosol Dispensers Regulations 2009
- The Product Safety and Metrology etc. (Amendment etc.) (UK(NI) Indication) (EU Exit) Regulations 2020

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

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SECTION 16: OTHER INFORMATION (continued)

This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

Texts of the legislative phrases mentioned in section 2:

H319: Causes serious eye irritation.

H373: May cause damage to organs through prolonged or repeated exposure (Oral). Organs affected: Kidneys.

H229: Pressurised container: May burst if heated.

H222: Extremely flammable aerosol.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):

Acute Tox. 4: H302 - Harmful if swallowed.

Eye Irrit. 2: H319 - Causes serious eye irritation.

Flam. Gas 1A: H220 - Extremely flammable gas.

Flam. Liq. 2: H225 - Highly flammable liquid and vapour.

Press. Gas: H280 - Contains gas under pressure, may explode if heated.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral).

STOT SE 3: H336 - May cause drowsiness or dizziness.

Classification procedure:

Eye Irrit. 2: Calculation method

STOT RE 2: Calculation method

Aerosol 1: Calculation method

Aerosol 1: Calculation method

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

LogPOW: Octanolwater partition coefficient

Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at UK, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -