



SAFETY DATA SHEET
750ml SUPER PROFESSIONAL DE-ICER A3
 Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

1.1. Product identifier

Product name 750ml SUPER PROFESSIONAL DE-ICER A3
Product number 800-272-0013 A3
Container size 750ML

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses De-icing fluid.

1.3. Details of the supplier of the safety data sheet

Supplier Mirius™
 A Coventry Group Company
 Woodhams Road
 Siskin Drive
 Coventry
 CV3 4FX
 Tel: +44 (0) 02476 639 739
 Fax: +44 (0) 02476 639 717
 Email: sales@mirius.com

Contact person For content of safety data sheet, sds@mirius.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1865407333 (Strictly for emergencies only: incidents involving damage to human health and/or the environment)

National emergency telephone number In case of a medical emergency following exposure to a chemical call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified
Health hazards Not Classified
Environmental hazards Not Classified

2.2. Label elements

Hazard statements NC Not Classified

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Precautionary statements

P102 Keep out of reach of children.
 P262 Do not get in eyes, on skin, or on clothing.
 P264 Wash contaminated skin thoroughly after handling.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 If eye irritation persists: Get medical advice/ attention.
 P501 Dispose of contents/ container in accordance with local regulations.

Detergent labelling < 5% non-ionic surfactants, Contains 2-Bromo-2-nitropropane-1, 3-diol

Supplementary precautionary statements P101 If medical advice is needed, have product container or label at hand.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ETHANE-1,2-DIOL			5-10%
CAS number: 107-21-1	EC number: 203-473-3	REACH registration number: 01-2119456816-28-XXXX	
Classification			
Acute Tox. 4 - H302 STOT RE 2 - H373			
2-(2-BUTOXYETHOXY)ETHANOL			5-10%
CAS number: 112-34-5	EC number: 203-961-6	REACH registration number: 01-2119475104-44-xxxx	
Classification			
Eye Irrit. 2 - H319			
ETHANOL			1-5%
CAS number: 64-17-5	EC number: 200-578-6	REACH registration number: 01-2119457610-43-XXXX	
Classification			
Flam. Liq. 2 - H225 Eye Irrit. 2 - H319			
PROPAN-2-OL			1-5%
CAS number: 67-63-0	EC number: 200-661-7	REACH registration number: 01-2119457558-25-XXXX	
Classification			
Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336			

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

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SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
Skin contact	Rinse immediately with plenty of water. Remove contaminated clothing. Get medical attention if irritation persists after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Vapours may cause headache, fatigue, dizziness and nausea.
Ingestion	May cause drowsiness or dizziness.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	May cause temporary eye irritation.

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

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire. Foam, carbon dioxide or dry powder.
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5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Oxides of carbon.
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5.3. Advice for firefighters

Protective actions during firefighting	Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	For personal protection, see Section 8. In case of spills, beware of slippery floors and surfaces.
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6.2. Environmental precautions

Environmental precautions	Collect and dispose of spillage as indicated in Section 13. Do not discharge into drains or watercourses or onto the ground.
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6.3. Methods and material for containment and cleaning up

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Methods for cleaning up Stop leak if safe to do so. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Do not use in confined spaces without adequate ventilation and/or respirator. Wear protective clothing as described in Section 8 of this safety data sheet. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Do not eat, drink or smoke when using this product. Pregnant or breastfeeding women should not work with this product if there is any risk of exposure.

Advice on general occupational hygiene No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products. Wash at the end of each work shift and before eating, smoking and using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

ETHANE-1,2-DIOL

Long-term exposure limit (8-hour TWA): WEL 20 ppm 52 mg/m³ vapour

Short-term exposure limit (15-minute): WEL 40 ppm 104 mg/m³ vapour

Sk

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ particulate

Sk

2-(2-BUTOXYETHOXY)ETHANOL

Long-term exposure limit (8-hour TWA): WEL 10 ppm 67.5 mg/m³

Short-term exposure limit (15-minute): WEL 15 ppm 101.2 mg/m³

ETHANOL

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m³

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m³

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

ETHANE-1,2-DIOL (CAS: 107-21-1)

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DNEL Industry - Inhalation; Short term systemic effects: 35 mg/m³
 Industry - Dermal; Long term : 106 mg/kg/day
 Consumer - Inhalation; Long term : 7 mg/m³
 General population - Dermal; Long term systemic effects: 53 mg/kg/day

PNEC - Fresh water; 10 mg/l
 - marine water; 1 mg/l
 - Soil; 1.53 mg/l
 - STP; 199.5 mg/l
 - Sediment (Freshwater); 37 mg/kg
 - Sediment (Marinewater); 3.7 mg/kg
 - Intermittent release; 10 mg/l

2-(2-BUTOXYETHOXY)ETHANOL (CAS: 112-34-5)

DNEL Workers - Inhalation; Long term systemic effects: 67.5 mg/m³
 Workers - Inhalation; Long term local effects: 67.5 mg/m³
 Workers - Dermal; Long term systemic effects: 20 mg/kg/day
 General population - Inhalation; Long term systemic effects: 34 mg/m³
 General population - Inhalation; Long term local effects: 34 mg/m³
 General population - Inhalation; Short term local effects: 34 mg/m³
 General population - Inhalation; Short term local effects: 50.6 mg/m³
 General population - Dermal; Long term systemic effects: 10 mg/kg/day
 General population - Oral; Long term systemic effects: 1.25 mg/kg/day

PNEC - Fresh water; 1 mg/l
 - marine water; 0.1 mg/l
 - Intermittent release; 3.9 mg/l
 - STP; 200 mg/l
 - Sediment (Freshwater); 4 mg/kg
 - Sediment (Marinewater); 0.4 mg/kg
 - Soil; 0.4 mg/kg

ETHANOL (CAS: 64-17-5)

DNEL Workers - Inhalation; Long term systemic effects: 950 mg/m³
 Workers - Inhalation; Short term local effects: 1900 mg/m³
 Workers - Dermal; Long term systemic effects: 343 mg/kg
 General population - Inhalation; Long term systemic effects: 114 mg/m³
 General population - Inhalation; Short term local effects: 950 mg/m³
 General population - Dermal; Long term systemic effects: 206 mg/kg/day
 General population - Oral; Long term systemic effects: 87 mg/kg/day

PNEC - Fresh water; 0.96 mg/l
 - marine water; 0.79 mg/l
 - Intermittent release; 2.75 mg/l
 - STP; 580 mg/l
 - Sediment (Freshwater); 3.6 mg/kg
 - Sediment (Marinewater); 2.9 mg/kg
 - Soil; 0.63 mg/kg

PROPAN-2-OL (CAS: 67-63-0)

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DNEL

Workers - Inhalation; Long term systemic effects: 500 mg/m³
 Workers - Dermal; Long term systemic effects: 888 mg/kg
 General population - Inhalation; Long term systemic effects: 89 mg/m³
 General population - Dermal; Long term systemic effects: 319 mg/kg
 General population - Oral; Long term systemic effects: 26 mg/kg

PNEC

- Fresh water; 140.9 mg/l
- marine water; 140.9 mg/l
- Intermittent release; 140.9 mg/l
- STP; 2251 mg/l
- Sediment (Freshwater); 552 mg/kg
- Sediment (Marinewater); 552 mg/kg
- Soil; 28 mg/kg

BRONOPOL (INN) (CAS: 52-51-7)

DNEL

Workers - Inhalation; Long term systemic effects: 4.1 mg/m³
 Workers - Inhalation; Short term systemic effects: 12.3 mg/m³
 Workers - Inhalation; Long term local effects: 4.2 mg/m³
 Workers - Inhalation; Short term local effects: 4.2 mg/m³
 Workers - Dermal; Long term systemic effects: 2.3 mg/kg/day
 Workers - Dermal; Short term systemic effects: 7 mg/kg/day
 Workers - Dermal; Long term local effects: 0.013 mg/cm²
 Workers - Dermal; Short term local effects: 0.013 mg/cm²
 General population - Inhalation; Long term systemic effects: 1.2 mg/m³
 General population - Inhalation; Short term systemic effects: 3.7 mg/m³
 General population - Inhalation; Long term local effects: 1.3 mg/m³
 General population - Inhalation; Short term local effects: 1.3 mg/m³
 General population - Dermal; Long term systemic effects: 1.4 mg/kg/day
 General population - Dermal; Short term systemic effects: 4.2 mg/kg/day
 General population - Dermal; Long term local effects: 0.008 mg/cm²
 General population - Dermal; Short term local effects: 0.008 mg/cm²
 General population - Oral; Long term systemic effects: 0.35 mg/kg/day
 General population - Oral; Short term systemic effects: 1.1 mg/kg/day

PNEC

- Fresh water; 0.01 mg/l
- marine water; 0.008 mg/l
- Intermittent release; 0.0025 mg/l
- STP; 0.43 mg/l
- Sediment (Freshwater); 0.041 mg/kg
- Sediment (Marinewater); 0.00328 mg/kg
- Soil; 0.5 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation.

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Eye/face protection	No specific eye protection required during normal use. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	For users with sensitive skin, it is recommended that suitable protective gloves are worn.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact. Use appropriate skin cream to prevent drying of skin.
Hygiene measures	When using do not eat, drink or smoke. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Use appropriate skin cream to prevent drying of skin.
Respiratory protection	No specific requirements are anticipated under normal conditions of use. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.
Environmental exposure controls	Avoid releasing into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Blue.
Odour	Mild.
pH	pH (concentrated solution): 7.9
Relative density	1.039 @ @ 20°C
Solubility(ies)	Soluble in water.
Explosive properties	Not applicable
Comments	Information given is applicable to the product as supplied.

9.2. Other information

Other information	Not relevant.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No potentially hazardous reactions known.
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10.4. Conditions to avoid

Conditions to avoid	Avoid exposure to high temperatures or direct sunlight.
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10.5. Incompatible materials

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Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

ATE oral (mg/kg) 6,826.83

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

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.

Reproductive toxicity

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

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.

General information

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

Inhalation

Vapour may irritate respiratory system/lungs.

Ingestion

May cause discomfort if swallowed. Irritation. Central nervous system depression. Dizziness. Nausea, vomiting.

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Skin contact	Skin irritation should not occur when used as recommended. Repeated exposure may cause skin dryness or cracking.
Eye contact	May cause temporary eye irritation.
Acute and chronic health hazards	Gas or vapour is harmful on prolonged exposure or in high concentrations. Only large quantities are likely to have adverse effects on human health.
Route of exposure	Ingestion Skin and/or eye contact
Medical symptoms	Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo.

SECTION 12: Ecological information

Ecotoxicity There are no data on the ecotoxicity of this product. Not regarded as dangerous for the environment.

12.1. Toxicity

Toxicity Not considered toxic to fish.

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product. The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

12.4. Mobility in soil

Mobility The product is water-soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information The generation of waste should be minimised or avoided wherever possible.

Disposal methods The packaging must be empty (drop-free when inverted). Wash with plenty of water. Waste packaging should be collected for reuse or recycling. Refer to manufacturer/supplier for information on recovery/recycling. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

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14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

**Annex II of MARPOL 73/78
and the IBC Code**

SECTION 15: Regulatory information

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

National regulations

Control of Substances Hazardous to Health Regulations 2002 (as amended).
EH40/2005 Workplace exposure limits.

EU legislation

Commission Regulation (EU) No 2015/830 of 28 May 2015.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (as amended).
Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents (as amended).

Guidance

Workplace Exposure Limits EH40.
COSHH Essentials.
ECHA Guidance on the Application of the CLP Criteria.
ECHA Guidance on the compilation of safety data sheets.

15.2. Chemical safety assessment

Currently we do not have information from our suppliers about this.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.

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Revision comments	New revision number applied to comply with Commission Regulation (EU) No 2015/830 Of 28 May 2015' NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	07/12/2018
Revision	4
Supersedes date	12/07/2018
SDS number	20629
Risk phrases in full	R21/22 Harmful in contact with skin and if swallowed. R22 Harmful if swallowed. R37/38 Irritating to respiratory system and skin. R41 Risk of serious damage to eyes. R50 Very toxic to aquatic organisms.
Hazard statements in full	H225 Highly flammable liquid and vapour. 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.

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.