Safety Data Sheet

De-icer -60°C

Replaces date: 30/08/2018

Revision date: 05/03/2023
Version: 2.0.0

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

1.1. Product identifier

Trade name: De-icer -60°C

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

Recommended uses: Anti-Freeze and de-icing products (PC4)

1.3. Details of the supplier of the safety data sheet

Supplier

Company:	Kramp UK Ltd
Address:	Unit 5 Lancaster Way
Zip code:	SG18 8YL
City:	Biggleswade
Country:	UNITED KINGDOM
E-mail:	sales.uk@kramp.com
Phone:	+44(0)1767 602 600

1.4. Emergency Telephone Number

Members of the public: 111 (NHS 111 (Scotland: NHS 24)).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP-classification: Flam. Liq. 3;H226
Eye Irrit. 2;H319

Most serious harmful effects: Flammable liquid and vapour. Causes serious eye irritation. The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication. Can be absorbed through the skin causing symptoms such as dizziness and headache.

2.2. Label elements

Pictograms

Signal word: Warning

Hazard Statements

H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P303+361+353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents/container in accordance with local regulation.

2.3. Other hazards

The product does not contain any PBT or vPvB substances.
Endocrine disrupting properties: None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	CAS No./ EC No./ REACH Reg. No.	Concentration	Notes	CLP-classification
ethanol	64-17-5 200-578-6 01-2119457610-43	50 -< 75 %		Flam. Liq. 2;H225 Eye Irrit. 2;H319
Ethanediol	107-21-1 203-473-3 01-2119456816-28	2.5 -< 10 %		Acute Tox. 4;H302 STOT RE 2;H373

Please see section 16 for the full text of H- / EUH-phrases.

Ingredient comments: Pursuant to Regulation (EC) No. 648/2004 on detergents:
less than 5%: anionic surfactants
Contains: perfumes

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: Seek fresh air. Seek medical advice in case of persistent discomfort.

Ingestion: Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Seek medical advice in case of persistent discomfort.

Skin contact: Remove contaminated clothing. Wash the skin with water. Seek medical advice in case of persistent discomfort.

Eye contact:	Flush immediately with water (preferably using eye wash equipment) for at least 5 minutes. Open eye wide. Remove any contact lenses. Seek medical advice.
Burns:	Flush with water until pain ceases. Remove clothing that is not stuck to the skin - seek medical advice/transport to hospital. If possible, continue flushing until medical attention is obtained.
General:	When obtaining medical advice, show the safety data sheet or label.

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

Irritating to eyes. Causes a burning sensation and tearing. The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication. Can be absorbed through the skin causing symptoms such as dizziness and headache.

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

Treat symptoms. No special immediate treatment required.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:	Extinguish with powder, foam or water mist. Use water or water mist to cool non-ignited stock.
Unsuitable extinguishing media:	Do not use water stream, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

The product decomposes when combusted and the following toxic gases can be formed: Carbon monoxide and carbon dioxide.

5.3. Advice for firefighters

Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases - seek fresh air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	Stay upwind/keep distance from source. Stop leak if this can be done without risk. Keep unnecessary personnel away. Wear safety goggles. Wear gloves. In case of insufficient ventilation, wear respiratory protective equipment. Provide adequate ventilation. Smoking and naked flames prohibited.
For emergency responders:	In addition to the above: Protective suit equivalent to EN 368, type 3, is recommended.

6.2. Environmental precautions

Prevent spillage from entering drains and/or surface water.

6.3. Methods and material for containment and cleaning up

Contain and absorb spill with sand or other absorbent, non-combustible material and transfer to suitable waste containers.

6.4. Reference to other sections

See section 8 for type of protective equipment. See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Use the product under well-ventilated conditions. Running water and eye wash equipment must be available. Wash hands before breaks, before using restroom facilities, and at the end of work. Smoking and naked flames prohibited. Take precautionary measures against static discharges. Use spark-free tools and explosion proof equipment.

7.2. Conditions for safe storage, including any incompatibilities

Store safely, out of reach of children and away from food, animal feeding stuffs, medicines, etc. Keep in tightly closed original packaging. Store in a dry, cool, well-ventilated area. Do not expose to heat (e.g. sunlight). Store at temperatures below 40°C. Do not store with the following: Strong acids/ Strong alkalis.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit

Substance name	Time period	ppm	mg/m³	fiber/cm3	Remarks	Comments
ethanol	8h	1000	1920			
ethanediol	8h		10		Particulate	Sk
ethanediol	8h	20	52		vapour	Sk
ethanediol	15m				Particulate	Sk
ethanediol	15m	40	104		vapour	Sk

Sk = Can be absorbed through the skin.

Measuring methods: Compliance with the stated occupational exposure limits may be checked by occupational hygiene measurements.

Legal basis: EH40/2005 Workplace exposure limits. Last amended January 2020.

PNEC

ethanol, cas-no 64-17-5

Exposure	Value	Assessment Factor	Extrapolation Method	Note
PNEC STP (wastewater-treatment facilities)	580 mg/l			
PNEC aqua (intermittent releases)	2,75 mg/l			
PNEC oral (foodstuffs)	720 g/kg			
PNEC aqua (freshwater)	0,96 mg/l			
PNEC aqua (marine water)	0,79 mg/l			
PNEC sediment (freshwater)	3,6 mg/kg			

Ethanediol, cas-no 107-21-1

Exposure	Value	Assessment Factor	Extrapolation Method	Note
PNEC STP (wastewater-treatment facilities)	199,5 mg/l			
PNEC soil	1,53 mg/kg			

PNEC aqua (intermittent releases)	10 mg/l			
PNEC aqua (freshwater)	10 mg/l			
PNEC aqua (marine water)	1 mg/l			
PNEC sediment (freshwater)	37 mg/kg			
PNEC sediment (marine water)	3,7 mg/kg			

DNEL - workers

ethanol, cas-no 64-17-5

Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Inhalation DNEL (acute/short-term exposure - local effects)	1900 mg/m³				
Inhalation DNEL (long-term exposure - systemic effects)	950 mg/m³				
Dermal DNEL (long-term exposure - systemic effects)	343 mg/kg				

Ethanediol, cas-no 107-21-1

Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Dermal DNEL (long-term exposure - systemic effects)	106 mg/kg				
Inhalation DNEL (long-term exposure - local effects)	35 mg/m³				

DNEL - general population

ethanol, cas-no 64-17-5

Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Oral DNEL (long-term exposure - systemic effects)	87 mg/kg				
Dermal DNEL (long-term exposure - systemic effects)	206 mg/kg				
Inhalation DNEL (acute/short-term exposure - local effects)	950 mg/m³				
Inhalation DNEL (long-term exposure - systemic effects)	114 mg/m³				

Ethanediol, cas-no 107-21-1

Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Dermal DNEL (long-term exposure - systemic effects)	53 mg/kg				

Inhalation DNEL (long-term exposure - local effects)	7 mg/m³				

8.2. Exposure controls

Appropriate engineering controls: Wear the personal protective equipment specified below.

Personal protective equipment, eye/face protection: Wear safety goggles. Eye protection must conform to EN 166.

Personal protective equipment, hand protection: Wear gloves. Type of material: Butyl rubber/ Neoprene rubber. Breakthrough time has not been determined for the product. Change gloves often. Gloves must conform to EN 374.

Personal protective equipment, respiratory protection: In case of insufficient ventilation, wear respiratory protective equipment. Filter type: A. Respiratory protection must conform to one of the following standards: EN 136/140/145.

Environmental exposure controls: Ensure compliance with local regulations for emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Parameter	Value/unit
State	Liquid
Colour	Blue
Odour	Citrus
Solubility	Soluble in the following: Water.

Parameter	Value/unit	Remarks
Odour threshold	No data	
Melting point	No data	
Freezing point	No data	
Initial boiling point and boiling range	84 °C	
Flammability (solid, gas)	No data	
Flammability limits	No data	
Explosion limits	3.4 - 19 vol%	
Flash Point	23 °C	
Auto-ignition temperature	400 °C	
Decomposition temperature	No data	
pH (solution for use)	No data	
pH (concentrate)	6.5 - 9.5	
Kinematic viscosity	No data	
Viscosity	No data	
Partition coefficient n-octonol/water	No data	
Vapour pressure	4446 hPa	20 °C.
Density	851 kg/m3	20 °C.
Relative density	0.851	20 °C.
Vapour density	No data	
Relative density (sat. air)	No data	
Particle characteristics	No data	

9.2. Other information

Parameter	Value/unit	Remarks
VOC	70 w/w%	

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with the following: Strong acids/ Strong alkalis.

10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid heating and contact with ignition sources.

10.5. Incompatible materials

Strong acids/ Strong alkalis.

10.6. Hazardous decomposition products

The product decomposes when combusted or heated to high temperatures and the following toxic gases can be formed: Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity - oral

ethanol, cas-no 64-17-5

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		6200 mg/kg			

Ethanediol, cas-no 107-21-1

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
	ATE		500 mg/kg			

Ingestion may cause discomfort. The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - dermal

ethanol, cas-no 64-17-5

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rabbit	LD50		20000 mg/kg			

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - inhalation

ethanol, cas-no 64-17-5

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LC50	4 h	124.7 mg/l			

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Skin corrosion/irritation: May cause slight irritation. The product does not have to be classified. Test data are not available.

Serious eye damage/eye irritation: Irritating to eyes. Causes a burning sensation and tearing.

Respiratory sensitisation or skin sensitisation: The product does not have to be classified. Test data are not available.

Germ cell mutagenicity: The product does not have to be classified. Test data are not available.

Carcinogenic properties: The product does not have to be classified. Test data are not available.

Reproductive toxicity: The product does not have to be classified. Test data are not available.

Single STOT exposure: The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication. Can be absorbed through the skin causing symptoms such as dizziness and headache. The product does not have to be classified. Test data are not available.

Repeated STOT exposure: The product does not have to be classified. Test data are not available.

Aspiration hazard: The product does not have to be classified. Test data are not available.

11.2. Information on other hazards

Endocrine disrupting properties: None known.

Other toxicological effects: None known.

SECTION 12: Ecological information

12.1. Toxicity

ethanol, cas-no 64-17-5

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Crustacea	Daphnia magna	48 h	48hEC50	9268 mg/l			
Fish	Alburnus alburnus	96 h	96hLC50	11000 mg/l			
Algae	Microcystis aeruginosa	192 h	192hEC50	1450 mg/l			

Ethanediol, cas-no 107-21-1

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Pimephales promelas	96 h	96hLC50	53000 mg/l			
Crustacea	Daphnia magna	48 h	48hEC50	51000 mg/l			
Algae	Selenastrum capricornutum	168 h	168hEC50	24000 mg/l			

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

12.2. Persistence and degradability

ethanol, cas-no 64-17-5

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
		14 d		89 %			
			BOD5/COD	0.57			

Ethanediol, cas-no 107-21-1

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
			BOD5/COD	0.36			
		14 d		90 %			
			COD	1.29		g O2/g	
			BOD5	0.47		g O2/g	

Expected to be biodegradable.

12.3. Bioaccumulative potential

ethanol, cas-no 64-17-5

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
			BCF	3			
			Log Pow	-0.31			

Ethanediol, cas-no 107-21-1

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
			BCF	10			
			Log Pow	-1.36			

The product contains at least one substance with low bioaccumulative potential.

12.4. Mobility in soil

ethanol, cas-no 64-17-5

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
			Log Koc	1			

Ethanediol, cas-no 107-21-1

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
			Log Koc	0			

The product contains at least one substance with high soil mobility.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances.

12.6. Endocrine disrupting properties

None known.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid discharge to drain or surface water. If this product as supplied becomes a waste, it meets the criteria of a hazardous waste (Dir. 2008/98/EU). Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site. Uncleansed packaging is to be disposed of via the local waste-removal scheme. Empty, cleansed packaging should be disposed of for recycling.

Category of waste: EWC code: Depends on line of business and use, for instance 07 06 04* other organic solvents, washing liquids and mother liquors

Absorbent/cloth contaminated with the product: EWC code: 15 02 02 absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	1987	**14.4. Packing group:**	III
14.2. UN proper shipping name:	ALCOHOLS, N.O.S. (ethanol)	**14.5. Environmental hazards:**	The product should not be labelled as an environmental hazard (symbol: fish and tree).
14.3. Transport hazard class(es):	3		
Hazard label(s):	3		
Hazard identification number:	30	**Tunnel restriction code:**	D/E
Other Information:	-		

Inland water ways transport (ADN)

14.1. UN number or ID number:	1987	**14.4. Packing group:**	III
14.2. UN proper shipping name:	ALCOHOLS, N.O.S. (ethanol)	**14.5. Environmental hazards:**	The product should not be labelled as an environmental hazard (symbol: fish and tree).
14.3. Transport hazard class(es):	3		
Hazard label(s):	3		
Transport in tank vessels:	-	**Other Information:**	-

Sea transport (IMDG)

14.1. UN number or ID number:	1987	**14.4. Packing group:**	III
14.2. UN proper shipping name:	ALCOHOLS, N.O.S. (ethanol)	**14.5. Environmental hazards:**	The product is not a Marine Pollutant (MP).
14.3. Transport hazard class(es):	3	**Environmental Hazardous Substance Name(s):**	
Hazard label(s):	3		
EmS:	F-E, S-D	**IMDG Code segregation group:**	- None -

Air transport (ICAO-TI / IATA-DGR)

14.1. UN number or ID number:	1987	**14.4. Packing group:**	III
14.2. UN proper shipping name:	ALCOHOLS, N.O.S. (ethanol)	**14.5. Environmental hazards:**	The product should not be labelled as an environmental hazard (symbol: fish and tree).
14.3. Transport hazard class(es):	3		
Hazard label(s):	3	**Other Information:**	-

14.6. Special precautions for user

None.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

Special Provisions: Directive 2012/18/EU (Seveso), P5c FLAMMABLE LIQUIDS: Column 2: 5000 t, Column 3: 50000 t.

15.2. Chemical Safety Assessment

Other Information: Chemical safety assessment has not been performed.

SECTION 16: Other information

Version history and indication of changes

Version	Revision date	Responsible	Changes
2.0.0	05/03/2023	Bureau Veritas HSE / SJU	2,11,12,16

Abbreviations:
PBT: Persistent, Bioaccumulative and Toxic
STOT: Specific Target Organ Toxicity
vPvB: Very Persistent and Very Bioaccumulative
DNEL: Derived No Effect Level
PNEC: Predicted No Effect Concentration

Other Information: This safety data sheet has been prepared for and applies to this product only. It is based on our current knowledge and the information that the supplier was able to provide about the product at the time of preparation. The safety data sheet complies with applicable law on preparation of safety data sheets in accordance with Regulation 1907/2006/EC “The Registration, Evaluation and Authorization of Chemicals” as amended by the stationary UK REACH etc. (EU Exit) as subsequently changed.

Training advice: A thorough knowledge of this safety data sheet should be a prerequisite condition.

Classification method: Calculation based on the hazards of the known components.

List of relevant H-statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

SDS is prepared by

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