



SAFETY DATA SHEET

Kilfrost Cooltrans CT

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

1.1. Product identifier

Product name Kilfrost Cooltrans CT

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

Identified uses Heat Transfer Fluid

1.3. Details of the supplier of the safety data sheet

Supplier Kilfrost Limited
 Albion Works
 HALTWHISTLE
 Northumberland
 NE49 0HJ
 ENGLAND
 Tel: (01434) 320332
 Fax: (01434) 321463
 Email: info@kilfrost.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1434 320332 (09:00 - 17:00, Mon-Fri) or +44 (0) 7827 653415 (24 hours)

Dilutions Applicable for dilutions between 20% product and 100% product

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified

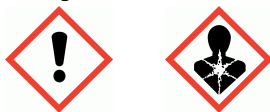
Health hazards Acute Tox. 4 - H302 STOT RE 2 - H373

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xn;R22.

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements H302 Harmful if swallowed.
 H373 May cause damage to organs through prolonged or repeated exposure if swallowed.

Kilfrost Cooltrans CT

Precautionary statements	<p>P260 Do not breathe vapour/spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.</p> <p>P314 Get medical advice/attention if you feel unwell.</p> <p>P330 Rinse mouth.</p> <p>P501 Dispose of contents/container in accordance with national regulations.</p>
---------------------------------	---

Contains ETHANEDIOL

2.3. Other hazards

No other information known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ETHANEDIOL	93%
CAS number: 107-21-1	EC number: 203-473-3
	REACH registration number: 01-2119456816-28-XXXX
Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302	Xn;R22
STOT RE 2 - H373	

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

Composition comments Information given is applicable to the product as supplied.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Treat symptomatically.
Inhalation	Move affected person to fresh air at once. Get medical attention.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Give milk instead of water if readily available. Keep affected person under observation. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes and get medical attention.

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

Inhalation	Irritation of nose, throat and airway.
Ingestion	May cause discomfort if swallowed. Sore throat. May cause stomach pain or vomiting.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

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.

Kilfrost Cooltrans CT

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

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.

6.2. Environmental precautions

Environmental precautions Contain spillage with sand, earth or other suitable non-combustible material.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. If involved in a fire, shut off flow if it can be done without risk. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections Collect and dispose of spillage as indicated in Section 13. For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Avoid spilling. Avoid contact with skin and eyes. Do not eat, drink or smoke when using the product.

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. Keep away from food, drink and animal feeding stuffs.

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

ETHANEDIOL

Kilfrost Cooltrans CT

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ particulate
 Long-term exposure limit (8-hour TWA): WEL 20 ppm 52 mg/m³ vapour
 Sk
 Short-term exposure limit (15-minute): WEL 40 ppm 104 mg/m³ vapour
 Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

Eye/face protection

The following protection should be worn: Chemical splash goggles.

Hand protection

Use protective gloves. Rubber (natural, latex). Neoprene. Polyvinyl chloride (PVC).

Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

Hygiene measures

Provide eyewash station. When using do not eat, drink or smoke. Wash hands after handling. Wash contaminated clothing before reuse.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn.

Environmental exposure controls

Keep container tightly sealed when not in use.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid. Coloured liquid.
Colour	Orange. or Customer specific
Odour	No characteristic odour.
Odour threshold	No information available. No information available.
pH	pH (diluted solution): 8.1 @ 50%
Melting point	Not determined.
Initial boiling point and range	165 @°C @ 1013 hPa (100%)
Flash point	110°C CC (Closed cup). (100%)
Evaporation rate	0.01 based on raw material
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 3.2 Upper flammable/explosive limit: 15.3 based on raw material based on raw material
Vapour pressure	0.09 mm Hg @ °C
Vapour density	2.1
Relative density	1.1134 @ @ 20°C (100%)
Solubility(ies)	Miscible with water.

Kilfrost Cooltrans CT

Partition coefficient	log Pow: 1.36 Based on raw material
Auto-ignition temperature	398°C based on raw material
Decomposition Temperature	No information available.
Viscosity	20.5 mPa s @ 20°C (100%)
Explosive properties	No information available.
Oxidising properties	Not available.

9.2. Other information

Refractive index	1.429 @ 20 (100%)
Freezing Point (°C)	-36 degC @ 50%

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
-------------------	---

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
------------------	---

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not relevant.
---	---------------

10.4. Conditions to avoid

Conditions to avoid	Avoid heat. Avoid contact with the following materials: Strong oxidising agents.
----------------------------	--

10.5. Incompatible materials

Materials to avoid	Strong oxidising agents.
---------------------------	--------------------------

10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended. Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
---	--

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)	5,000.0
--	---------

Species	Rat
----------------	-----

Notes (oral LD₅₀)	Estimated value.
-------------------------------------	------------------

ATE oral (mg/kg)	1,704.56
-------------------------	----------

Germ cell mutagenicity

Genotoxicity - in vitro	No information available.
--------------------------------	---------------------------

Carcinogenicity

Carcinogenicity	No evidence of carcinogenicity in animal studies.
------------------------	---

Reproductive toxicity

Reproductive toxicity - fertility	No information available.
--	---------------------------

Kilfrost Cooltrans CT

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

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No data available.

Ingestion Harmful if swallowed.

Skin contact Slightly irritating.

Eye contact Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

Toxicological information on ingredients.

ETHANEDIOL

Acute toxicity - oral

ATE oral (mg/kg) 1,590.0

SECTION 12: Ecological Information

12.1. Toxicity

Acute toxicity - fish LC50, 96 hours, 96 hours: > 10,000 mg/l, Estimated value.

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours, 48 hours: > 100 mg/l, Daphnia magna Estimated value.

12.2. Persistence and degradability

Persistence and degradability The product is expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient log Pow: 1.36 Based on raw material

12.4. Mobility in soil

Mobility The product is miscible with water. May spread in water systems.

Surface tension 45 mN/m @ @ 20°C (33% solution)

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment No data available.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Kilfrost Cooltrans CT

General information Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods 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.

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 MARPOL73/78 and the IBC Code

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

SECTION 15: Regulatory information

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

EU legislation

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).
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).
Commission Regulation (EU) No 453/2010 of 20 May 2010.

Guidance

Workplace Exposure Limits EH40.

Water hazard classification

WGK 1

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information Only trained personnel should use this material.

Kilfrost Cooltrans CT

Revision date	30/06/2015
Revision	3
SDS status	Approved.
Risk phrases in full	R22 Harmful if swallowed.
Hazard statements in full	H302 Harmful if swallowed. H373 May cause damage to organs through prolonged or repeated exposure if swallowed. H373 May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.

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.