



MATERIAL SAFETY DATA SHEET

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Version : 2

Date : 24 / 6 / 2015

Supersedes : 16 / 8 / 2010

SOLUFLUID HEAT PUMP

105410500

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

1.1. Product identifier**Product name** : SOLUFLUID HEAT PUMP**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Relevant identified uses** : Antifreeze for central heating installations and frozen water installations**1.3. Details of the supplier of the safety data sheet**: DEHON SERVICE
26 Avenue du Petit Parc
94683 VINCENNES Cedex France
Tel : +33 (0) 1 43 98 75 00
Fax : +33 (0) 1 43 98 21 51**e-mail** : ContactFDS@climalife.dehon.com**1.4 Emergency telephone number** : EMERGENCY TELEPHONE NUMBER (24h/24) : + 33 (0) 1 72 11 00 03
Anti-poison Center : INRS/ORFILA (France) : +33 (0) 1 45 42 59 59
Anti-poison Centre (Belgium) : +32 70 245 245
Anti-poison Centre (Spain) : +34 91 562 04 20
Anti-poison Centre (Finland/Estonia) : +358 9 471977
Anti-poison Centre (Netherlands) : +31 30 274 8888
Anti-poison Centre (United Kingdom) : +44 870 600 6266
Poisons Information Centre (Hungary) : +36 80 201 199

SECTION 2 Hazards identification

2.1. Classification of the substance or mixture**2.1.1. Regulation (EC) No 1272/2008 (CLP)** : Not classified as dangerous product.**2.1.2 Directive EEC/67/548 or 1999/45/CE** : Not classified as dangerous product.**2.2. Label elements****2.2.1 Labelling EC 1272/2008 (CLP)** : None**2.3. Other hazards** :
None under normal conditions.

SECTION 3 Composition/information on ingredients

3.1./3.2. Substance / Preparation : Preparation

Substance name	Contents	CAS No	EC No	Index No	Ref REACH	Classification
Propane-1,2-diol	: 30 to 50 %	57-55-6	200-338-0	-----	01-2119456809-23	Not classified. (DSD/DPD) Not classified. (GHS)

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SECTION 4 First aid measures

4.1. Description of first aid measures

- Inhalation** : Not specifically applicable
If you feel unwell, seek medical advice.
Assure fresh air breathing.
- Skin contact** : Wash with soapy water
If case of redness or irritation, call a doctor
- Eye contact** : Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum)
If irritation persists, consult an eye specialist
- Ingestion** : Rinse mouth out with water
Never attempt to induce vomiting
consult a doctor

4.2. Most important symptoms and effects, both acute and delayed : No information available

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

SECTION 5 Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO2)
Water spray
Alcohol resistant foam
Powders

Unsuitable extinguishing media : No data

5.2. Special hazards arising from the substance or mixture : Toxic vapours are released (CO, CO2)

5.3. Advice for firefighters

Specific fire fighting methods : Cool down the containers exposed to heat with a water spray
Do not attempt to fight the fire without suitable protective equipment

Protection of fire-fighters : Complete protective clothing
Self-contained breathing apparatus

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures : Avoid contact with skin and eyes
Do not breathe vapours
Remove all sources of ignition
No smoking
Caution : this product can cause the floor to be very slippery

6.2. Environmental precautions : Contain the spilled material by bunding
Do not discharge into drains or rivers

6.3. Methods and material for containment and cleaning up : Dispose of contaminated materials in accordance with current regulations.
Recover the product with absorbent material

6.4 Reference to other sections : For further information refer to section 8 "Exposure controls/personal protection"

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SECTION 7 Handling and storage

7.1. Precautions for safe handling

Technical measures

: Ensure good ventilation of the work station
Vapour extraction at source

Precautions

: Flammable or explosive vapour/air mixtures may be formed
Avoid high temperatures.
Avoid the build-up of electrostatic charge
Keep away from sources of ignition - No smoking.

Industrial hygiene

: Always wash hands after handling the product
Always take a shower after work.
Do not drink, eat or smoke in the workplace

7.2. Conditions for safe storage, including any incompatibilities

- Recommended

: Store :
- the container tightly closed and dry
- in a dry, well-ventilated area
- protected from heat
- away from any source of ignition

Incompatible products

: Strong oxidizing agents

Packaging materials

- Recommended

: Aluminium.
Stainless steel
Polyethylene

- Not suitable

: Galvanized steel
Zinc

7.3. Specific end use(s)

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Engineering measures

: Ensure good ventilation of the work station

8.1.1. Occupational Exposure Limits

: Propane-1,2-diol : United Kingdom : WEL - TWA (8h; mg/m³) : 474
Propane-1,2-diol : United Kingdom : WEL - TWA (8h; ppm) : 150

8.2. Exposure controls

Personal protection :

- Respiratory protection

: If the ventilation is suitable, it is not essential to wear respiratory equipment
In case of insufficient ventilation, wear suitable respiratory equipment.
Mask with A canister

- Hand protection

: Nitrile-rubber protective gloves
Permeation rates according to EN 374 : 6 (breakthrough time > 480 min)

- Eye protection

: Safety goggles

- Skin protection

: Wear suitable protective clothing.

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SECTION 9 Physical and chemical properties
9.1. Information on basic physical and chemical properties
9.1.a. Appearance
Physical state : Liquid

Colour : Yellow

9.1.b. Odour : Odourless

9.1.c. Odour threshold : No data

9.1.d. pH : 7.5 - 9 (Aqueous solution - 33 g/100ml)

9.1.e. Melting point / Freezing point : - 25°C

9.1.f. Initial boiling point - boiling range : + 104°C

9.1.g. Flash point : Not applicable

9.1.h. Evaporation rate : No data

9.1.i. Flammability : Difficult to ignite

9.1.j. Explosion limits (lower - upper)
Explosion limits - lower : 2.4 % (volume)

Explosion limits - upper : 17.4 % (volume)

9.1.k. Vapour pressure : No data

9.1.l. Vapour density : No data

9.1.m. Density : 1.04 g/cm³ at 20°C

9.1.n. Solubility
-in water : Complete

9.1.o. Partition coefficient : n-octanol / water : Propylene Glycol : - 1.07

9.1.p. Auto-ignition temperature : No data

9.1.q. Thermal decomposition : No data

9.1.r. Viscosity : No data

9.1.s. Explosive Properties : Not explosive material according to EC criteria

9.1.t. Oxidising properties : Non oxidizing material according to EC criteria

9.2. Other information
SECTION 10 Stability and reactivity
10.1. Reactivity
10.2. Chemical stability : Stable at ambient temperature and under normal conditions of use

10.3. Possibility of hazardous reactions : No dangerous reactions known under normal conditions of use

10.4. Conditions to avoid : - high temperatures, naked flames

10.5. Incompatible materials : - strong oxidizing agents
- zinc and its alloys.

10.6. Hazardous decomposition products : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases

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SECTION 11 Toxicological information
11.1. Information on toxicological effects
Acute toxicity
On ingredients

Propane-1,2-diol : Rabbit dermal, LD50 [mg/kg] : 20800
 : Rat oral LD50 [mg/kg] : 20000

- **Skin corrosion/irritation** : Not irritating to skin
- **Serious eye damage/irritation** : Not irritating to eyes
- **Respiratory or skin sensitisation** : No sensitizing effect is known
- **Germ cell mutagenicity** : No information available
- **Carcinogenicity** : No information available
- **Reproductive toxicity** : No information available
- **STOT-single exposure** : No information available
- **STOT-repeated exposure** : No information available
- **Aspiration hazard** : No information available

SECTION 12 Ecological information
12.1. Toxicity

Effects on the aquatic environment : This product contains no hazardous components for the aquatic environment.

On ingredients

Propane-1,2-diol : 48 Hour - EC50 - Daphnia magna [mg/l] : 1000
 : 72 Hour - EC50 - Algae (Selenastrum capricornutum) [mg/l] : 1000
 : 96 Hours - LC50 - Fish (Pimephales Promelas) [mg/l] : 1000

12.2. Persistence and degradability : Readily biodegradable

12.3. Bioaccumulative potential : Not potentially bioaccumulable.

12.4. Mobility in soil : No data

12.5. Results of PBT and vPvB assessment : This mixture contains no substance meeting PBT and vPvB criteria

12.6. Other adverse effects

SECTION 13 Disposal considerations
13.1. Waste treatment methods
WASTE FROM PRODUCT :

Prohibition : : Do not allow the product to be released into the environment

Destruction/Disposal : Dispose of in accordance with relevant local regulations

CONTAMINATED PACKAGING :

Destruction/Disposal : Destroy at an authorised site

NOTE : The user's attention is drawn to the possible existence of specific european, national or local regulations regarding disposal

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SECTION 14 Transport information

RID/ADR/IMDG/IATA : Not regulated

SECTION 15 Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.

France : Professional diseases(table(s) nr 84) : applicable

15.2. Chemical safety assessment : No information available

SECTION 16 Other information

Further information : Product for professional use only
For more information regarding the use of this product, please refer to our technical information or contact the sales department in your region
This safety data sheet has been written in conformity with the regulation (UE) 453/2010.

*** Update** : All chapters have been modified since the previous version

This sheet complements the technical sheets but does not replace them. The information given is based on our knowledge of the product, at the time of publication. It is given in good faith.

Besides, the attention of the user is drawn to the possible risks incurred by using the product for any other use than that for which it was intended.

In no way does this exempt the user from knowing and applying all the regulations controlling his activity. He alone will take on the responsibility for taking the precautions involved by the use of the product.

The aim of all the mandatory regulations mentioned is just to help the user to fulfil his obligations regarding the use of hazardous products.

This information must not be considered exhaustive. It does not exempt the user from ensuring that other obligations than those mentioned could apply, related to the storage and use of the product, this being his sole responsibility.

End of document

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