



MATERIAL SAFETY DATA SHEET

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Version : 2

Date : 31 / 5 / 2013

Supersedes : 1 / 12 / 2010

GREENWAY® HEAT PUMP -30

1054109

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

- * **Product name** : GREENWAY® HEAT PUMP -30
Recommended uses : Ready to use for sensor circuits in geothermal or aerothermal applications.
SUPPLIER :
Name : DEHON SERVICE
Address : 26, Avenue du Petit Parc
94683 VINCENNES cedex
FRANCE
Telephone number : 01 43 98 75 00
Telefax number : 01 43 98 21 51
- * **e-mail** : ContactFDS@climalife.dehon.com
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 (Spain) : +34 91 562 04 20
Anti-poison Centre (Belgium) : +32 70 245 245
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

MOST IMPORTANT HAZARDS :

- Adverse human health effects** : To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice
- Physical and chemical hazards :**
- Fire or explosion : Combustible liquid
Not classified as flammable by EC criteria but may present a hazard in the event of a fire
- Classification of the product :** : This product is not classified as a "hazardous preparation" according to European Community regulations

SECTION 3 Composition/information on ingredients

PREPARATION :

- Chemical nature** : Mixture containing mainly :
Propane-1,3-diol

Hazardous constituents :

Substance name	Contents	CAS No	EC No	Index No	Ref REACH	Classification
Propane-1,3-diol	> 30 %	504-63-2	207-997-3	----	01-2119489383-28	Not classified. (DSD/DPD)
Propane-1,2-diol	< 0.1 %	57-55-6	200-338-0	----	01-2119456809-23	Not classified. (DSD/DPD)

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SECTION 4 First aid measures

Inhalation	: Not specifically applicable
Skin contact	: Rinse with 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

SECTION 5 Fire-fighting measures

Suitable extinguishing media	: Carbon dioxide (CO2) Water spray Alcohol-resistant foam Powders
Unsuitable extinguishing media	: Strong water jet
Specific hazards	: Combustible
Specific fire fighting methods	: Clear the danger area Cool down the containers exposed to heat with a water spray Do not dispose of fire-fighting water in the environment
Protection of fire-fighters	: Self-contained breathing apparatus Complete protective clothing

SECTION 6 Accidental release measures

Personal precautions	: Avoid contact with skin and eyes Do not breathe vapours Only qualified personnel equipped with suitable protective equipment may intervene Remove all sources of ignition
Environmental precautions :	: Contain the spilled material by bunding Prevent the product from entering drains
Clean up methods :	
- Neutralization	: - inert material (sand, earth) Absorb spillage with:
- Disposal	: Dispose of contaminated materials in accordance with current regulations

SECTION 7 Handling and storage

HANDLING

Precautions	: Handle in well ventilated areas Avoid any direct contact with the product Smoking is forbidden Remove all sources of ignition Take precautionary measures against static discharges.
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STORAGE

Technical measures Storage conditions	: The floor of the depot should be impermeable and designed to form a tight basin
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SECTION 7 Handling and storage (continued)

- Recommended : Store :
 - in a dry, well-ventilated area
 - away from any source of ignition
 Keep container tightly closed.

Packaging materials

- Recommended : Stainless steel
 - Not suitable : Zinc ; Galvanized steel

SECTION 8 Exposure controls/personal protection

Engineering measures : Ensure good ventilation of the work station
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

Personal protection :

- **Respiratory protection** : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation.
 In the event of insufficient ventilation: Mask with A canister

- **Hand protection** : Protective gloves made of rubber

- **Eye protection** : Safety goggles

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

SECTION 9 Physical and chemical properties

Physical state : Liquid
Colour : Green
Odour : weak
pH value : 8,2 - 8,4
Specific temperatures :
Freezing point : - 30 °C
Boiling point : Initial : +105°C
Flammability characteristics :
Flash point : > 100°C
Density : 1,040 g/cm³ at 20 °C
Solubility :
-in water : Complete
Hygroscopicity : Hygroscopic product

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SECTION 10 Stability and reactivity

Stability :	: Stable under normal conditions of use
Hazardous reactions :	
Conditions to avoid	: - high temperatures, naked flames
Incompatible materials	: - strong oxidizing agents
Hazardous decomposition products :	: Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases

SECTION 11 Toxicological information

Acute toxicity	
On ingredients	
Propane-1,3-diol	: Rat oral LD50 [mg/kg] : 15000 : Rat inhalation LC50 [mg/l/4h] : 5 : Percutaneous (Rabbit) LD50 [mg/kg] : > 20000
Propane-1,2-diol	: Rat oral LD50 [mg/kg] : 19400 to 36000 (Bibliographic results) : Rabbit dermal LD50 [mg/kg] : 20800 (Bibliographic results)
Local effects :	: Slightly irritating to skin
Respiratory or skin sensitization	: Propane-1,3-diol : No sensitizing effect is known
Specific effects :	
Carcinogenicity	: No data available.
Germ cell mutagenicity	: No mutagenic effect

SECTION 12 Ecological information

DEGRADABILITY:	: No specific data available
ECOTOXICITY :	
Effects on the aquatic environment	
On ingredients	
Propane-1,3-diol	: 96 Hours - LC50 - Fish [mg/l] : 9720 (Pimephales promelas) : 48 Hour - EC50 - Daphnia magna [mg/l] : 7417 : 72 Hours - EC50 - Algae [mg/l] : 1600
Propane-1,2-diol	: 48 Hour - EC50 - Daphnia magna [mg/l] : 34400 : 96 Hours - LC50 - Fish (Oncorhynchus mykiss) [mg/l] : 51600 : 96 Hour - EC50 - Algae (Selenastrum capricornutum) [mg/l] : 19000

SECTION 13 Disposal considerations

WASTE FROM PRODUCT :	
Destruction/Disposal	: Dispose of in accordance with relevant local regulations
CONTAMINATED PACKAGING :	
Destruction/Disposal	: Destroy at an authorised site

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SECTION 14 Transport information

RID/ADR/IMDG/IATA : Not regulated
NOTE : The above regulatory prescriptions are those valid on the date of publication of this sheet
However, given the possible evolution of transport regulations for hazardous materials, in case the present sheet is dating back to more than 12 months ago, it would be advisable to check their validity with your commercial agency

SECTION 15 Regulatory information

EC Labelling :
Symbol(s) : None.
R Phrase(s) : None.
S Phrase(s) : None.
FURTHER REGULATIONS :
France : Professional diseases(table(s) nr 84) : applicable
Germany : Water hazard class : 1 (specific classification)
NOTE : The regulatory information given in this part only indicate the principal regulations specifically applicable to the product described in the Safety Data Sheet.
The user's attention is drawn to the possible existence of additional provisions which complete these regulations.

SECTION 16 Other information

Further information : For more information regarding the use of this product, please refer to our technical information or contact the sales department in your region
Product for professional use only
This safety data sheet has been written in conformity with the annex II of the regulation (EC) 1907/2006 (REACH).
* Update : Modifications are indicated by an asterisk (*)

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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