SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

HELOSATE 450 TF

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		Region: GB	Print Date: 05.08.2021
		Language: EN	

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

1.1 Product identifier

Trade name : HELOSATE 450 TF

Product code : 000000000000106048

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

Use of the Sub-stance/Mixture : Herbicide

Uses advised against : No data available.

1.3 Details of the supplier of the safety data sheet

Company : HELM AG
Nordkanalstrasse 28
20097 Hamburg

Telephone : +49/4023750

Telefax : +49/4023751845

E-mail address of person responsible for the SDS : SDB@HELMAG.COM

1.4 Emergency telephone number

For medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)
In case of transport incidents and other emergencies:
+44 (0) 1235 239 670 (NCEC, National Chemical Emergency Centre)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Supplemental Hazard Statements : EUH210 Safety data sheet available on request.

EUH401 To avoid risks to human health and the environ-

ment, comply with the instructions for use.

Precautionary statements :

Prevention:

P273 Avoid release to the environment.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Aqueous solution

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
N-(phosphonomethyl)glycine, compound with 2-propylamine (1:1)	38641-94-0 254-056-8 - -	Aquatic Chronic2; H411	>= 50 - < 70
isopropylamine	75-31-0 200-860-9 612-007-00-1 -	Flam. Liq.1; H224 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335	>= 1 - < 10
lauryldimethylbetaine	683-10-3 211-669-5 - -	Skin Corr.1B; H314	>= 1 - < 3
dodecyldimethylamine	112-18-5 203-943-8 - -	Acute Tox.4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400	>= 0.25 - < 1
For the full text of the H-Statements mentioned in this Section, see Section 16.			

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	:	Take off all contaminated clothing immediately. Call a doctor immediately if allergic signs, particularly in the respiratory tract, are observed. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	:	If inhaled, remove to fresh air.
In case of skin contact	:	In case of skin contact Wash off with plenty of water.
In case of eye contact	:	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Protect unharmed eye.
If swallowed	:	Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	:	No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Alcohol-resistant foam Dry chemical Carbon dioxide (CO2) Water spray
Unsuitable extinguishing media	:	High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Combustion products of this material have to be classed invariably as respiratory poison.
Hazardous combustion products	:	In the event of fire, the following can be released: Carbon dioxide (CO2) Carbon monoxide

5.3 Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
Further information	:	Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions	:	Do not flush into surface water or sanitary sewer system. Do not allow uncontrolled discharge of product into the environment. Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Information regarding safe handling, see chapter 7. For personal protection see section 8. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Handle with care.Avoid inhalation, ingestion and contact with skin and eyes.Provide sufficient air exchange and/or exhaust in work rooms.
Advice on protection against fire and explosion	:	Keep away from heat and sources of ignition.
Hygiene measures	:	Avoid contact with skin, eyes and clothing. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and at the end of workday. Wash hands before eating, drinking, or smoking.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in properly labelled containers.

Advice on common storage : Substances to be avoided, pls. See chapter 10.

7.3 Specific end use(s)

Specific use(s) : No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

Effective exhaust ventilation system
Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Safety glasses with side-shields
Equipment should conform to EN 166

Hand protection

Remarks : Protective gloves complying with EN 374.
Gloves must be inspected prior to use.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Preventive skin protection

Respiratory protection : Apply technical measures to comply with the occupational

exposure limits.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	:	liquid
Colour	:	colourless to pale yellow
Odour	:	No data available
Odour Threshold	:	No data available
pH	:	ca. 4.4 (20 °C) Concentration: 100 % Method: CIPAC MT 75.3
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	Method: EEC A9 does not flash
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	ca. 1.2 g/cm3 (20 °C) Method: EEC A3
Solubility(ies)		

Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	27.3 mPa.s (40 °C) Method: CIPAC MT 192
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	no
Particle size	:	Not applicable

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : None known.

10.6 Hazardous decomposition products

None, when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : LD50: > 2,000 mg/kg
Method: OECD Test Guideline 423

Acute inhalation toxicity : LC50 (Rat): > 4.4 mg/l
Test atmosphere: Mist
Method: OECD Test Guideline 403
Remarks: highest checkable concentration

Remarks: No mortality.

Acute dermal toxicity : LD50: > 2,000 mg/kg
Method: OECD Test Guideline 402

Components:

N-(phosphonomethyl)glycine, compound with 2-propylamine (1:1), CAS: 38641-94-0, EINECS: 254-056-8

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Remarks: Source: Toxnet

Acute inhalation toxicity : LC50 (Rat): > 1.3 mg/l
Exposure time: 4 h
Test atmosphere: Dust
Remarks: Based on available data, the classification criteria are not met.
Source: Toxnet

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Remarks: Source: Toxnet

Skin corrosion/irritation

Product:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Serious eye damage/eye irritation

Product:

Species : Rabbit
Method : OECD Test Guideline 405

Result : No eye irritation

Respiratory or skin sensitisation

Product:

Exposure routes : Dermal
Species : Guinea pig
Method : OECD Test Guideline 406
Result : non-sensitizing

Further information

Product:

Remarks : When handled appropriately adverse health effects are not to be expected.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata): 38.2 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EC50 (Navicula pelliculosa (Freshwater diatom)): 40.4 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

ErC50 (Skeletonema costatum (marine diatom)): 45.3 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Components:

N-(phosphonomethyl)glycine, compound with 2-propylamine (1:1), CAS: 38641-94-0, EINECS: 254-056-8

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 2.3 mg/l
Exposure time: 96 h

Remarks: Source: Toxnet

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 3 mg/l
Exposure time: 48 h
Remarks: Source: Toxnet

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Components:

N-(phosphonomethyl)glycine, compound with 2-propylamine (1:1), CAS: 38641-94-0, EINECS: 254-056-8

Partition coefficient: n-octanol/water : log Pow: -5.4
Remarks: Source: Toxnet

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:

Environmental fate and pathways : Do not allow uncontrolled discharge of product into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : In accordance with local and national regulations.
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.

SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not listed
REACH - List of substances subject to authorisation (Annex XIV)	:	Not listed
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not listed
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not listed

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E2	ENVIRONMENTAL HAZARDS

The components of this product are reported in the following inventories:

TCSI	:	Not in compliance with the inventory
TSCA	:	Product contains substance(s) not listed on TSCA inventory.
AICS	:	Not in compliance with the inventory

DSL	:	This product contains one or several components that are not on the Canadian DSL nor NDSL.
ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
NZIoC	:	Not in compliance with the inventory

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information

Sources of key data used to compile the Safety Data Sheet

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.
EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU
National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Full text of H-Statements

H224	:	Extremely flammable liquid and vapour.
H302	:	Harmful if swallowed.
H314	:	Causes severe skin burns and eye damage.
H315	:	Causes skin irritation.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H335	:	May cause respiratory irritation.
H400	:	Very toxic to aquatic life.
H411	:	Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Skin Corr.	:	Skin corrosion

Skin Irrit.	:	Skin irritation
STOT SE	:	Specific target organ toxicity - single exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

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This information is based on our present knowledge and experience.
The safety data sheet describes products with a view to safety requirements.
It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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