

Safety Data Sheet

According to Regulation (EC) 1272/2008
Version 1 Date of issue 28 / 04 / 2016

Section 1: Identification of the substance/preparation and of the company/undertaking

1.1 Product identifier

Trade name: **Zeo marine**

1.2 Use of the substance / mixture

Liquid for cleaning ships and boats

1.3 Details of the supplier of the safety data sheet

ZEO TEC HELLAS GROUP IKE
SPARTIA AREA, SESKLO VOLOS
Tel. 2421095212
FAX: 2421095212
Postcode: 38500
E-MAIL : zthellasgroup@gmail.com

1.4 Emergency telephone number

Emergency telephone number: 210 -7793777

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

According to Regulation (EC) No 1272/2008

Eye irritation Cat. 2

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Pictogram



Signal word: Attention

Hazard statement(s) (recognized): H

H319: Causes serious eye irritation.

Precautionary Statement(s)

P102: Away from children.

P305 + P351 + P338: In case of eye contact: Rinse thoroughly with water for several minutes. If there are contact lenses, remove them, if it is easy. Keep rinsing.

P301 + P310: IF SWALLOWED: Call immediately **Emergency telephone number** or a doctor.

Additional hazard statements

Other hazards

There are no other known dangers.

The product does not comply with the criteria as PBT or vPvB according to the requirements of Regulation No 1907/2006 (EC), Annex XIII.

Section 3: Composition/information on ingredients

3.1 Mixtures

Hazardous ingredients

CAS No/EC	Ingredient	Number Reach	Classification according to 1272/2008/EC	Concentration
64-02-8	Ethylenediaminetetraacetic acid, Tetrasodium salt	01-2119486762-27	Acute Tox. 4 - H302 Eye Dam. 1 - H318	0% - 5%
111905-53-4	Ethoxylated alcohol 4	02-2119552554-37	Skin Corr./Irrit. 2 Eye Dam. /Irrit. 2, H319, H315	0% - 5%
EC: 939-625-7	Alkane C6-C8 (even numbered), 1-sulphonic acid sodium salt	01-2119985168-23-0000	Skin Corr./Irrit. 2 Eye Dam /Irrit. 2, H319, H315	0% - 5%

Section 4: First aid measures

4.1 Description of first aid measures

In case of inhalation: In case of inhalation, move to fresh air and put the patient at a constant lateral position.

In case of skin contact

Immediately remove contaminated clothes and shoes. Wash with soap and water.

In case of eye contact

Rinse with plenty of water for several minutes and consult a doctor.

In case of ingestion: rinse mouth with water and drink afterwards plenty of water.

4.2 Main symptoms and effects, acute and subsequent

Not available.

4.3 Indication of any immediate medical attention and special treatment needed

Not available.

Section 5: Firefighting measures

5.1 Firefighting equipment/Appropriate firefighting equipment

Fire dust, mousse, sand, water spray

5.2 Specific hazards arising from the substance or mixture

In case of fire nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO2) may be released.

5.3 Recommendations for firefighters

Do not try to combat fire without the appropriate protective equipment: Wear self-contained breathing apparatus. Remove all people from the incident.

Special protective equipment: Wear protective clothing extinguishing (garments, helmets, footwear, gloves) according to the European Standard EC 469.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

The product in contact with water can form slippery mattresses. There is high risk of slipping after spill or leakage.

6.2 Environmental precautions:

Prevent further leakage and dissipation, if it is possible without risk. Do not flush into surface water or sanitary sewer system. If the product contaminates the environment, inform respective authorities.

6.3 Methods and materials for restriction and cleaning:

Stop leaking.

Dispose of contaminated materials according to current regulations.

6.4 Reference to other sections

For information for safe handling, see section 7.

For information for personal protective equipment, see section 8.

For information for disposal, see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling: Keep containers tightly closed.

Advice on protection against fire and explosion:

No special measures are required.

7.2 conditions for safe storage, including any incompatibilities

Storage:

Stored at temperatures below 30°C.

Compatible packaging materials: stainless steel, plastic.

Instructions on storing materials together: Keep separately from oxidizing substances.

Further statements about storage conditions:

None.

7.3 Specific end use(s)

Not available.

Additional instructions on configuring technical installations:

No other recommendations. See section 7.

Section 8: Exposure controls/ personal protection

8.1 Control Parameters

Components with limit values concerning the working places and which must be monitored:

ETHYLENEDIAMINETETRAACETIC ACID TETRASODIUM SALT

DNEL Source of basic data: IUCLID 5 datasheet:

Secondary level without consequences for workers with acute local respiratory exposure (mg/m³) / Secondary level without consequences for Workers with acute systemic respiratory exposure (mg/m³): 2.8

Secondary level without consequences for the general population with acute local/systemic respiratory exposure (mg/m³): 1.7

Secondary level without consequences for the general population with long-term systemic oral exposure (mg/kg bw/day): 28

PNEC Source basic of data: IUCLID 5 datasheet:

Predicted concentration without effect on fresh water (mg/l): 2.8

Predicted concentration without effect on seawater (mg/l): 0.28

Predicted concentration without effects in case of uninterrupted release (mg/l): 1.6

Predicted concentration without effects on processing factory waste (mg/l): 57

Predicted concentration without effects on soil (mg/kg): 0.95

8.2 Exposure controls

Personal protective equipment:

General protective and sanitary measures:

During the use of the material, do not eat, drink, smoke. Keep away from food, drink and animal's food.

Remove immediately dirty, wet clothes. Wash hands before breaks and at the end of work.

Avoid skin and eye contact.

Respiratory Protection:

Not necessary.

Hand Protection:

Wear protective gloves. The material of gloves must be impenetrable and resistant to the product.

Due to no realization of tests, no specific material of gloves for the product can be proposed.

Choose the material of glove, taking into account the penetration time, the extent permeability and degradation.

Material of gloves

Rubber Nitril.

The choice of an appropriate glove depends not only on its material, but also on other quality features which differ from one manufacturer to another according to EN 374.

Penetration time of material gloves

For mixtures of the following listed chemicals the breakthrough time should be at least 480 minutes (Permeability according to EN 374). The exact breakthrough time is given by the manufacturer of the protective gloves and should always be respected.

Eye protection:

Absolutely tightly fitting safety goggles.

Skin and body protection:

Wear suitable protective clothing.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information	
Appearance: form:	Thin liquid
Color:	Various
Odour:	Characteristic
Odour threshold:	-
PH at 20 °C:	11± 0.5
Melting point/liquidation limits:	>300 °C
Boiling point/boiling limits:	>400 °C
Flashpoint :	The material does not ignite
Decomposition Temperature:	Unusable .
Risk of flammability	No risk of flammability.

Explosion Hazard:	No explosion hazard.
Explosion limits:	
Lower:	It does not exist.
Upper:	It does not exist.
Steam pressure:	Unusable
Density at 20 °C:	1,02 g/cm ³
Relative density	Undefined.
Vapor Density	Unusable
Evaporation Speed	Unusable
Solubility in water at 20 °C:	Full
Distribution factor (n-octanol/H₂O) to 23°C	-
Viscous capacity:	
Dynamic:	Unusable
Kinematics:	Unusable

9.2 Other information

There is no other relevant information.

Section 10: Stability and reactivity

10.1 Reactivity

There are no elements.

10.2 Chemical stability

Thermal decomposition / conditions to avoid:

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

None known dangerous reaction.

10.4 Conditions to avoid

There is no other relevant information.

10.5 Incompatible materials:

There is no other relevant information.

Section 11: Toxicological information

11.1 Information on toxicological effects

Ethoxylated alcohol 4

Acute toxicity

Experimental data/ by calculation:

LD50 rat (oral): > 2,000 mg/kg

Irritating effects

Experimental data/ by calculation:

Insulting skin irritation / rabbit: irritating (OECD - Directive 404)

Eye damage / irritation rabbit: irritating (OECD - Directive 405)

ETHYLENEDIAMINETETRAACETIC ACID TETRASODIUM SALT

Direct toxicity

Oral LD-50

1780 mg/kg (No guidelines were followed.)

Dermal LD-50

There are no data available.

Inhalation LC50

According to junction of information (ethylenediaminetetraacetic acid disodium salt): 1000 < 4- h-LC50 < 5000 mg/m³ (similar to: OECD 403)

Irritation

Skin: Non-irritating (OECD 404)

Eye: Irritating (similar to: OECD 405)

Breathing: Non-irritating (based on: acute inhalation test) (OECD 403)

Sensitisation

According to junction of information (ethylenediaminetetraacetic acid disodium salt):
Sensitising (OECD 406)

Genotoxicity

According to junction of information (hydroethylenediaminetriacetic acid of trisodium citrate):
Ames test: Negative (OECD 471).
Chromosome Aberration Test: Negative (OECD 473).
Test Lymphoma of Mouse: Negative (OECD 476).
Test micronucleus test on animals: Negative (OECD 474).

Chronic toxicity/carcinogenicity**Oral:**

According to junction of information (ethylenediaminetetraacetic acid disodium salt):
90-day: Non-noticed level of adverse effects: 500 mg/kg (general signs of toxicity? –No guidelines were followed.)

According to junction of information (hydroethylenediaminetriacetic acid of trisodium citrate):
104- week: Non-noticed level of adverse effects: >= 500 mg/kg (No guidelines were followed.)

Inhalation:

According to junction of information (ethylenediaminetetraacetic acid disodium salt):
5-day: Lowest observable adverse effect concentration (LOAEC): 30 mg/m³ (respiratory tract pathology) (OECD 412).

Reproduction toxicity:

According to junction of information (ethylenediaminetetraacetic acid, calcium disodium-complex):
Oral, NOAEL play: >= 250 mg/kg (No guidelines were followed.)
According to junction of information (several EDTA compounds): developmental effects seen at high oral doses only. NOAEL development: not found (No guidelines were followed.)

Neurotoxicity test: There is no specific information available.

Other toxicological information

Chronic toxicity (dermal): No data available.

Additional Information

The material is extremely destructive to tissues of mucous membranes and the upper respiratory tract, eyes and skin.

Alkane C6-C8 (even numbered), 1-sulphonic acid sodium salt

DL50: > 1550 mg/kg (rats)

DL50: > 2000 mg/kg (rats)

Initial irritating action:**Skin:**

Irritating to skin and mucous membranes.

Eyes:

Irritating.

Sensitisation:

No skin sensitisation (data available).

Repeated dose toxicity

NOAEL (oral/subchronic: rat): 430 mg/kg/jour target organs: liver

Section 12: Ecological information

Ethoxylated alcohol 4

12.1. Toxicity

Acute toxicity to fish:

LC50 (48 h) 1 - 10 mg/l, *Leuciscus idus*

Aquatic Invertebrates:

EC50 (48 h) 1 - 10 mg/l

LC0 1 - 10 mg/l

Microorganisms/influence the activated sludge:

EC10 > 1,000 mg/l, activated sludge (DEV-L2)

12.2. Persistence and degradability

Information for eradication:

>= 90 % active ingredient bismuth (MOD. Oecd 301E)

> 60 % BOD of ThOD (28 d) (Directive OECD 301 F) easily biodegradable.

12.3. Bioaccumulative Potential

Bioaccumulative potential:

No bioaccumulation of organisms is expected.

12.4. Mobility in soil

Risk assessment of distribution among environmental compartments.:

The substance will not evaporate into the atmosphere from the surface of the water.

It is possible to be absorbed in solid phase of the soil.

12.5. Results of PBT and vPvB assessment

According to Annex XIV to Regulation (EU) No.1907/2006 for chemical substance, REACH (Registration, Evaluation, Authorisation and Acronym for of Chemicals): The product does not contain any substance which corresponds to the criteria PBT (persistent, bioaccumulative, toxic) or vPvB (very persistent / very bioaccumulative). See classification

12.6. Other negative effects

The product does not contain substances according to Regulation (EC) 1005/2009 that destroy the ozone layer.

12.7. Additional Information

Cumulative Factor

Chemical Oxygen Demand (COD): 2,160 mg/g

Absorbable organic bound halogen (AOX):

This product does not contain organic bound halogen.

Other eco-toxicological advice:

It should not be expected suspension of degradative action of activated sludge when there is correct import of small concentrations.

ETHYLENEDIAMINETETRAACETIC ACID TETRASODIUM SALT

Ecotoxicological information

Ethylenediaminetetraacetic acid, tetrasodium salt: not dangerous to the environment.

PBT or vPvB: not.

Fish

According to junction of information (several EDTA compounds):

Lepomis macrochirus, 96- h-LC50 > 1000 mg/l (No guidelines were followed.)

According to junction of information (ethylenediaminetetraacetic acid, calcium disodium-complex):

Brachydanio rerio, 35-Day: Concentration of non-noticed level of effects (NOEC) >= 25.7 mg/l (OECD 210)

Daphnia

According to junction of information (ethylenediaminetetraacetic acid disodium salt):

Daphnia magna, 48- h-EC50: 140 mg/l (DIN 38412, 11)

According to junction of information (ethylenediaminetetraacetic acid disodium salt):

Daphnia magna, 21-Day: Concentration of non-noticed level of effects (NOEC): 25 mg/l (Guideline: EC XI/681/86, Draft: 4)

Seaweed

According to junction of information (ethylenediaminetetraacetic acid, complex ferrous sodium):

Desmodesmus subspicatus and Pseudokirchnerella subcapitata, 72- h-EC50 > 300 mg/l (OECD 201)

Bacteria

According to junction of information (ethylenediaminetetraacetic acid disodium salt):

30-OJ 1976 EC20 > 500 mg/l (OECD 209)

PBT or vPvB: Not

Luck

Abiotic Decomposition

Time of half-life: 20 days. It is expected to be resistant to hydrolysis.

Biotic Decomposition

Bioaccumulation

Lepomis macrochirus, flow through, 28-Day, 1< Factor bioconcentration factor (BCF) <2 (No Guidelines were followed.)

Alkane C6-C8 (even numbered), 1-sulphonic acid sodium salt

Fish, CL50: > 100 mg/l

Daphnia, CE50: > 100 mg/l

Alga, NOEC: 6,25 mg/l

Section 13: Disposal considerations

13.1 Waste treatment methods

Recommendation:

It is not allowed to throw it with common garbage. Do not dispose of waste into sewer.

Contaminated packagings:

Recommendation: deposition according to official instructions.

Means of cleaning: Water

Section 14: Transport information

The transport of the product is safe in containers of the company and does not require any additional precautions.

14.1 UN Number ADR, ADN, IMDG, IATA	Unusable.	-
14.2 Proper shipping name ADR, ADN, IMDG, IATA	Unusable.	-
14.3 Transport hazard class ADR, ADN, IMDG, IATA	Unusable	-
14.4 Packing Group ADR, IMDG, IATA	Unusable	-
14.5 Environmental hazards: Environmentally dangerous:	Not	
14.6 Special precautions for the user	Unusable	

Section 15: Regulatory information

15.1 Regulations/legislation regarding safety, health and environment for the substance or mixture

Ingredients in accordance with Regulation Detergents 648/2004/EC

The mixture contains inter alia below 5% anionic non-ionic surfactants and EDTA Na.
It also contains conservative METHYLCHLOROISOTHIAZOLINONE, METHYLISOTHIAZOLINONE.

15.2 Chemical safety assessment

There is no chemical safety assessment.

Section 16: Other information

For full text of R-, H- and EUH- phrases mentioned, see section 3.

H302: Harmful if swallowed.
H319: Causes serious eye irritation.
H315: Causes skin irritation.
H318: Causes severe eye damage.
Skin Corr./Irrit. Skin Corrosion/Irritation
Eye Dam /Irrit. Serious eye damage/irritation
Acute Tox. Acute toxicity

Footnotes and Acronyms:

DNEL - Secondary Level Without Effects
EUH - CLP Statement Specific risk
ABT - persistent, bioaccumulative and toxic
PNEC - predicted concentration without Effects
Number Reach - registration number reach
vPvB - very persistent and very bioaccumulative

The information provided in this Safety Data Sheet concerns only the specific product of our company based on the current level of knowledge and it cannot be considered as a guarantee for quality specification of the product.