

Safety Data Sheet

According to Regulation (EC) No 1272/2008
Version 1 Date of issue 25/06/2019

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

1.1 Product identifier

Trade name: **Zeo GA329**

1.2 Use of the substance / mixture

Use of the substance/mixture: **Liquid for laundry**

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

Serious eye damage Cat. 1

Skin irritation Cat. 2

Pictogram



Signal word: **Danger**

Hazard statement(s)(recognized): H

H318: Causes serious eye damage.

H315: Causes skin irritation.

Precautionary Statement(s)

P102: Keep out of the Reach of children.

P280: Wear protective gloves/protective clothing/personal protective equipment for the eyes/face.

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.

P337 + P313: If eye irritation does not retreat, consult a doctor.

P302 + P352: In case of skin contact: Wash thoroughly with soap and water.

P301 + P310: If swallowed: Call immediately **Emergency telephone number** or a doctor.

Other hazards

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	Ingredient	Number REACH	Classification according to 1272/2008/EC	Concentration
68891-38-3	SODIUM LAURYL ETHER SULFATE	01-2119488639-16	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412	0% - 5%
	SODIUM DODECYLBENZENE SULFONATE	Mixture: Result of neutralization	H302, H315, H318	5% - 15 %
61789-40-0	Cocoamidopropyl Betaine	01-2119513359-38	Eye Dam. 1, H318	0% - 3%
160901-19-9	Alcohols, branched C12-13 and linear, ethoxylates (> 5 - <15 EO)	polymer	Acute Tox., 4; Eye Dam., 1; Aquatic Chronic 3, H302, H318, H412	5% -15%
79-14-1	Glycolic Acid	01-2119485579-17	Acute Tox. 4; H332 Skin Corr. 1B; H314	0%- 3%
111- 76-2	2 butoxyethanol	01-2119976333-33		0% - 3%

56539-66-3	3methoxy-3-methylbutan-1-ol	01-2119976333-33	Eye Irrit. 2; H319	0% - 3%
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Section 4: First Aid Measures

4.1 Description of first aid measures

After 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 with your eyelids open.

In case of ingestion: Rinse mouth with water and drink enough water.

4.2 Main symptoms and effects, acute and subsequent

Not available.

4.3 Indication of any required 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 a fire may be released: nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂)

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 extinguishing clothing (garments, helmets, footwear, gloves) according to the European Standard EC 469.

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. Wear your personal protective clothing.

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. The depuration in environment must be avoided. 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 the 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 workplace control which should be monitored:

Regards the ingredient SODIUM LAURYL ETHER SULFATE

DNELs

Secondary level without impact (DNEL) for exposure of workers:

Long-term systemic effects through repeated dermal contact, DNEL: 2,750 mg/kg bw/day

Long-term systemic effects through repeated inhalation, DNEL: 175 mg/m³

Secondary level without impact (DNEL) for exposure of consumers:

Long-term systemic effects through repeated dermal contact, DNEL: 1,650 mg/kg bw/day

Long-term systemic effects through repeated inhalation, DNEL: 52 mg/m³

Long-term systemic effects through repeated ingestion DNEL: 15 mg/kg

PNECs

Predicted concentration without effects:

PNEC Freshwater: 0.24 mg/l

PNEC seawater: 0.024 mg/l

PNEC intermittent releases: 0.071 mg/l

PNEC sediment freshwater: 5.45 mg/kg

PNEC sediment seawater: 0.545 mg/kg

PNEC territory: 0.946 mg/kg

PNEC sewage treatment installations: 10 g/l

Regards the ingredient SODIUM DODECYLBENZENESULFONATE

DNEL Workers

Dermal, long-term exposure - systemic effects 170 mg/kg Referred to body weight and day.

Oral, Long-term exposure - systemic effects 12 mg/m³

DNEL consumers

Dermal, long-term exposure - systemic effects 85 mg/kg Referred to body weight and day.

Oral long-term exposure - systemic effects 3 mg/m³
Inhalation, long-term exposure - systemic effects 0,85 mg/kg

Referred to body weight and day.

Environmental Exposure - PNEC

Environmental Section	Value	Note
Fresh Water		0,268 mg/l
Sea water	0,0268 mg/l	
Provisional Release	0.055 mg/l	
Treatment of waste water	5.6 mg/l	
Precipitate of freshwater	8,1 mg/kg	Referred to dry substance
Marine sediment	8,1 mg/kg	Referred to dry substance
Height	35 mg/kg	Referred to dry substance
Food		Without importance / unusable

It concerns the component GLYCOLIC ACID

(DNEL)

TYPE	REPORT	PRICE	POPULATION	IMPACT
DNEL	Long Term Skin	57,69 mg/kg bw/day	Workers	Systematic
DNEL	Long Term Inhalation	9,2 mg/m3	Workers	Systematic
DNEL	Long Term Skin	28,85 mg/kg bw/day	Consumers	Systematic
DNEL	Long Term Inhalation	2,3 mg/m3	Consumers	Systematic
DNEL	Long Term Oral	0,75 mg/kg bw/day	Consumers	Systematic

(PNEC)

Section: Fresh water Price: 0,0312 mg/l
 Section: Sea water Price: 0,0031 mg/l
 Section: Intermittent use/release Price: 0,312 mg/l
 Section: Fresh water sediment Price: 0,115 mg/kg
 Section: Sea water sediment Price: 0,0115 mg/kg
 Section: Soil Τιμή: 0,007 mg/kg
 Section: Sewage treatment Price: 7 mg/l

Section: Oral (food chain): 16,66 g/kg

Component	CAS -No	Value	Control Parameters	The basis
2-Butoxyethanol	111-76-2	TWA	20 ppm 98 mg/m ³	Directive 2000/39/EC establishing a first list of indicative levels of exposure for workers
	Comments	Recognizes the possibility of a significant uptake via the Skin Indicative concentration limit		
		STEL	50 ppm	Directive 2000/39/EC establishing a first list of indicative levels of exposure for workers
		Recognizes the possibility of a significant uptake via the Skin Indicative concentration limit		
		TWA	25 ppm	indicative level of exposure for workers
		The indication Skin (S), which highlights certain chemical agents of the table in paragraph 1 of Article 3, implies the possible contribution of these chemical agents to the overall exposure of the worker and the amount that is absorbed through the skin in direct contact with them.		

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:

No respiratory protection is required.

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.

Breakthrough time of the material of 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:

Tightly fitting safety goggles absolutely.

Skin and body protection:

Wear suitable protective clothing.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<u>General Information</u>	
Appearance: form:	Liquid
Color:	Various
Odour:	Characteristic
Odour threshold:	-.
PH at 20 °C:	3± 0.5
Melting point/liquidation limits:	-
Boiling point/boiling limits:	-
Flashpoint :	Not self-igniting
Decomposition Temperature:	Unusable
Flammability	Undefined
Explosion Hazard:	There is no danger of explosion.
Explosion limits:	
Lower:	It does not exist.
Upper:	It does not exist.
Steam pressure:	Unusable
Density at 20 °C:	1,01 g/cm ³
Relative density	Undefined
Vapor Density	Unusable
Evaporation Speed	Unusable
Solubility in water at 20 °C:	Full
Distribution factor (n-octanol/H ₂ O) 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**

Regards the ingredient **SODIUM LAURYL ETHER SULFATE**

Danger of immediate toxicity:

Significant classification values-LD/LC50		
By mouth	LD50	> 2000 mg/kg (rats) (OECD Guideline 401)
By skin	LD50	> 2000 mg/kg (rats)

Initial irritating action:

Skin: Irritating to skin and mucous membranes.

Eye: Serious eye irritation/damage.

Sensitization:

None known.

Subacute to chronic toxicity:

The available toxicity studies provide a coherent picture of a subacute and chronic toxicity by mouth. For the entire category of Alcholethoxysulfates (AESs), value: NOAEL 300 mg/kg bw.

Toxicokinetics, metabolism and distribution

Not classified.

Acute effects (acute toxicity, skin irritation and corrosiveness)

Acute toxicity (oral):

The substance is not classified.

Skin irritation and corrosiveness (skin, eyes):

The substance is irritating to skin and particularly irritating to eyes.

Sensitization

There is no sensitization.

Repeated dose toxicity

Not classified.

NOAEL: 300 mg/kg bw/day

Impact CMT (carcinogenicity, mutagenicity and reproduction toxicity)**Carcinogenicity:**

Not classified. The systemic toxicity is predicted to be very low. There is no need for further assessment.

Mutagenicity:

Not classified toxicity for reproduction:

The reproduction toxicity study showed NOAEL for reprotoxicity greater than 300 mg/kg/day.

The developmental toxicity study showed NOAEL=1000 mg/kg/day.

Regards the ingredient **SODIUM DODECYLBENZENESULFONATE**

Acute oral toxicity

LD50 rat: 2,000 - 5,000 mg/kg? OECD Guideline test 401

According to the available data, the criteria for classification are not fulfilled.

Acute inhalation toxicity

The analysis is not necessary.

For different ways of exposure, there are several available data.

Acute skin toxicity

LD50 rat: > 2,000 mg/kg? OECD Guideline 402 Test

The value above arises from the evaluation or the result of controls to similar products (similar conclusion)
(Literature value)

Substance tested: Benzenesulfonic acid, C10-13-derivatives of crosspolymer salts of sodium on the basis of the data available, does not meet the criteria for classification.

Mutagenicity germ cells

There are no elements.

Alcohols, C12-13- branched and linear, ethoxylated

Acute toxicity

Acute oral toxicity

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): LD50 rat: > 300 - 2,000 mg/kg

According to results from our own tests/available literature: Harmful if swallowed.

Acute inhalation toxicity

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): No such evidence available.

Acute toxicity to the skin

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): LD 50 rabbit: > 2,000 mg / kg

Examined Group (literature importance)

Based on the available data, the criteria for classification are not met.

Corrosion and skin irritation

Skin irritation

Alcohols, branched C12-13 and linear, ethoxylated (>5 - <15 EO):

Rabbit: non-irritant

Examined Group

According to results from our own tests/available literature

Based on the available data, the criteria for classification are not met.

Serious damage/irritation to eyes

Eye irritation

Alcohols, branched C12-13 and linear, ethoxylated (>5 - <15 EO):

Rabbit: irreversible effects in the eyes

According to results from our own tests/available literature

Examined Group

Causes severe damage to the eyes

Respiratory sensitization or skin sensitization

Sensitization

Alcohols, branched C12-13 and linear, ethoxylated (>5 - <15 EO):

Experiment to maximize (GPMT) Guinea-pig: Not sensitized

Examined Group (Literature importance)

Based on the available data, the criteria for classification are not met.

Germ cell mutagenicity

Genotoxicity in vitro

Alcohols, branched C12-13 and linear, ethoxylated (>5 - <15 EO):

In-vitro experiments in-vitro did not show mutagenic effects

Examined Group

According to results from our own tests/available literature

Genotoxicity in-vivo

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): in-vivo experiments did not show mutagenic effects

Examined Group (Literature importance)

Remarks

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):

Based on the available data, the criteria for classification are not met.

Carcinogenicity

Carcinogenicity

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):

The substance has been proven to be non-genotoxic and, therefore, is not expected to have carcinogenic potential.

Examined Group (bibliographical importance)

Comments

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):

Based on the available data, the criteria for classification are not met.

Reproduction toxicity

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):

Reproductive Toxicity Studies on two generations of rats

NOAEL ((parents):> 250 mg/kg (refers to in the body weight and the day.)

NOAEL (F1): > 250 mg/kg (refers to body weight and day)

NOAEL (F2):> 250 mg/kg (refers to body weight and the day)

Examined Group (Literature importance)

Remarks

Reproductive toxicity

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):

Based on the available data, the criteria for classification are not met.

Teratogenicity

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):

Rat; oral

NOAEL: > 50 mg/kg (refers to body weight and day)

NOAEL (mother): 50 mg/kg (refers to body weight and day); toxicity study in two-generation reproduction

Examined Group (Literature importance)

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): rat skin;

NOAEL: > 250 mg/kg (refers to the body weight and day)

NOAEL (mother): 250 mg/kg (refers to body weight and day); toxicity study in two-generation reproduction

Examined Group

(Literature importance)

Remarks - Teratogenicity

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):

Based on the available data, the criteria for classification are not met.

STOT- single exposure report

Remarks

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):

The substance or mixture is not classified as toxic to specific target organs, after single exposure.

STOT- repeated exposure report

Remarks

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):

The substance or mixture is not classified as toxic to specific target organs, after repeated exposure.

Repeated dose toxicity

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): rat; oral; 2 years

NOAEL: 50 mg/kg (refers to body weight and the day.)

Target organs: liver, heart, kidney

Symptoms: decreased body weight gain, weight increase of organs

Examined Group

(Literature importance)

Suction toxicity

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): Not applicable

Toxicological information

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):

Toxicokinetics

Examined Group

The substance is expected to be absorbed and excreted at a rapid rate.

(Literature importance)

Cocoamidopropyl Betaine

Significant prices classification-LD/LC50
Oral LD50 2335 mg/kg (rat)
Skin LD50 >2000 mg/kg (rat)

Initial irritation:

On the skin: strong caustic effects on skin and mucous membranes.

In the eye: Strong caustic effects

Intense irritation and serious risk of damage to the eye damage

Sensitization: No sensitization known

Additional toxicological indications:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version

Corrosive

Irritating

If swallowed it causes burns to the mouth and throat as well as risk of perforation of the esophagus and stomach.

Toxicokinetics, metabolism and distribution:

Not classified.

Sensitization:

Not sensitng

Repeated dose toxicity:

NOAEL (oral) of the active substance: 300 mg/kg body weight / day

Not classified.

CMR effects (carcinogenicity, mutagenicity and reproductive toxicity):

No known significant effect or critical hazard

GLYCOLIC ACID

Acute oral toxicity

LD50 / Rat: 2 040 mg / kg

Method: US EPA TG OPP 81-1

Acute inhalation toxicity

Acute toxicity assessment: 4.85 mg / l

Acute skin toxicity

Assessment of acute toxicity / human:> 5 000 mg / kg

Method: Expert decision

Skin irritation

Rabbit

Classification: Corrosive Result: Causes burns.

Method: OECD Test Guideline 404

Eye irritation

Rabbit

Classification: Causes severe burns.

Result: Corrosive

Method: OECD Test Guideline 405

Awareness

Aquarius

Classification: Does not cause skin sensitization.

Result: It does not cause skin sensitization.

Method: OECD Test Guideline 406

Repeated dose toxicity

Oral NOAEL Rat: 150 mg / kg

Method: OECD Test Guideline 408

Changes in organ weight, Impact on the kidneys

Assessment of mutagenicity

Animal experiments showed no mutagenic activity. Experiments in bacteria and in mammalian cell cultures showed no mutagenic effect.

Assessment of carcinogenicity

Not classified as carcinogenic to humans. Animal experiments showed no carcinogenic effect

Assessment of reproductive toxicity

No reproductive toxicity Experiments in animals showed no reproductive toxicity

Assessment of teratogenicity

Evidence suggests that the substance is not a developmental toxin for animals.

Carcinogenesis

Conclusion / Summary: Not available.

Reproductive toxicity

Conclusion / Summary: Not available.

Teratogenicity potential

Conclusion / Summary: Not available.

For 3-METHOXY-3-METHYLBUTANOL-1

Acute toxicity

Is not classified based on available information.

Acute oral toxicity: LD50 (rat): 4,400 mg/kg

Acute dermal toxicity: LD50 (rat): >2,000 mg/kg

Assessment: This substance or mixture does not have acute toxicity from skin

Corrosion and skin irritation

Is not classified based on the information available.

Type: Rabbit

Effect:

No skin irritation.

Serious damage/eye irritation :causes serious eye irritation.

Genre: Rabbit

Effect: Eye irritation, reversed within 21 days

Respiratory sensitization or skin sensitization

Sensitization of the skin: not classified based on available information.

Respiratory sensitization: not classified based on available information.

Type of test: Experiment maximize exposure pathways:

Skin Contact Type:

Hydroboar effect: Negative

Germ cell mutagenicity is not classified based on available information

Carcinogenicity

It is not classified on the basis of the information available.

Effects on Fertility :it is not classified on the basis of the information available.

Test Type: Reproduction/toxicity examination test .Type: Rat

Way of Application: Swallowing

Method: OECD Test Guideline 421, result:Negative

Effects on fetal development:

SpeciesTest: Fetaldevelopment .Genre: Rat

Method of application: swallowing

Effect: Negative

STOT-one-off report

Is not classified based on available information.

STOT-repeated exposure

Is not classified based on available information.

Repeated dose toxicity species: rat, male

NOAEL: 60 mg/kg

LOAEL: 250 mg/kg

Application way: Swallowing. Exposure time: 28 days

Genre: Rat, male LOAEL: 0.53 mg/L

Application Mode: inhalation (steam) exposure time: 28 days.

Suction Toxicity is not classified based on available information.

About ingredient 2-BUTOXYETHANOL

LD50 Oral-rat-470 mg/kg LC50 inhalation-rat-4h-450 ppm

Remarks: behavior: ataxia diet and overall metabolism: changes in: Weight loss or reduced weight gain

Skin: Classified In accordance with Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

LD50 intraperic-rat-LD50 intravenous-rat-

Corrosion and skin irritation

Skin-Rabbit. Effect: Open the irritation test

Serious damage/eye irritation

Eyes-Rabbit:

Effect: Moderate eye irritation-24 h

Respiratory sensitized or sensitized of the skin

There is no evidence.

Mutagenicity of germ cell There is no evidence.

Carcinogenesis

IARC: 3-Group 3: Non-classifiable in human carcinogenicity (2-Butoxyethanol)

Reproductive toxicity

No evidence

The overexposure can cause reproductive disorders based on test subjects.

Specific target organ toxicity-single exposure

No evidence of specific target organ toxicity-repeated exposure

No evidence of aspiration toxicity

No data available

Section 12: Ecological information

Regards the ingredient **SODIUM LAURYL ETHER SULFATE**

12.1 Toxicity

Aquatic toxicity:	
EC10 (static) LC50	>10000 mg/l (Pseudomonas putida) 7,1 mg/l (Brachydanio rerio) 27,7 mg/l (Desmodesmus subspicatus) 7,4 mg/l (freshwater fish) 1,05 mg/l (Pimephales promelas)

12.2 Persistence and degradability

Easy biodegradability

Biodegradable according to regulation of detergents, 648/2004/EC.

The surfactants included in this product comply with the biodegradability criteria as defined in Regulation 648/2004/EC. The data supporting this statement are at the disposal of the relative authorities of the Member States and they will be provided to them after request of the manufacturer.

All studies concerning degradation were carried out according to the directions of the OECD or the EU guidelines and on the basis of the GLP.

The percentage degradation and biodegradability may vary between 76-81% for parameter O₂-consumption and 96-100% for parameter DOC-expulsion.

Experimental result: directly biodegradable 100% (28 d) DOC Removal Method: EU Method C.4-C (Determination of the "Ready" Biodegradability - Carbon Dioxide EvolutionTest)

12.3 Bioaccumulative potential

No bioaccumulative potential.

No bioaccumulation in aquatic organisms is expected because the substance has a low log Kow \leq 3.

Taking into account the rapid degradation of the substance in the environment and the low bioaccumulative potential, proven in aquatic species, bioaccumulation in terrestrial species is considered to be negligible.

12.4 Mobility in soil

Dissolve easily in water and is easily biodegradable.

Further ecological information:

General instructions: There is no known risk to the aquatic environment.

12.5 Results of PBT and vPvB assessment

PBT: Not classified.

vPvB: Not classified.

12.6 Other negative effects

Not available.

The ingredient :alcohols, C12-13 branched and linear, ethoxy

12.1 Toxicity

Toxicity to fish - Chronic toxicity

EC10 Pimephales promelas (Fathead carp): > 0.1 - 1 mg/l; mortality (bibliographical importance)

Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity

EC10 Daphnia magna : > 0.1 - 1 mg/l Play Test? OECD TG 211? (bibliographical importance)

Toxicity to aquatic plants

EC50 (72 h) Desmodismus subspicatus (green algae): > 1 - 10 mg/l? static test? OECD TG 201? results our own tests/values Literature Group examination

Toxicity to bacteria

EC50 activated sludge: 140 mg/l; prevention of respiratory examination group (bibliographical importance)

Toxicity to soil organisms

NOEC Eisenia foetida: 220 mg/kg; reproduction rate? artificial ground Group examination (bibliographical importance)

Toxicity to terrestrial plants

Vegetation, development? NOEC: 10 mg/kg? Lepidium sativum (watercress)? OECD TG 208 results our own tests/values Literature Group examination

Toxicity to terrestrial non-mammals

There is no evidence

12.2 durability and capacity degradation

Biodegradability

Organic abiotically easily. > 60 %; 28 d? aerobic? OECD TG 301 B results in our own tests/values Literature Group examination

12.3 bioaccumulation potential

Bioaccumulation

Bioaccumulation is unlikely. (Bibliographical importance)

12.4 Mobility in the soil

Mobility

Absorption/Ground? Koc: > 5000? QSAR (bibliographical importance)

12.5 RESULTS OF PBTS and Vpvbs

Results of the evaluation PBTS

On the basis of available data, are not met the criteria for classification.

12.6 Other negative effects

General recommendations

Alcohols, C12-13 branched and linear, ethoxy (\geq 2.5 EO): Harmful to aquatic organisms, with long-term effects.

For 3-METHOXY-3-METHYLBUTANOL-1

12.1 Toxicity

Toxicity to fish: LC50 (Oryzias latipes (Japanese medaka)): >100 mg/L Exposure Time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic mollusks: EC50 (Daphnia magna (Nerygialos the Great)): >1,000 mg/L exposure time: 48 h

Toxicity to Algae: NOEC (Selenastrum capricornutum (green algae))> 1,000 mg/L

Exposure time: 72 h

ErC50 (Selenastrum capricornutum (green algae)): >1,000 mg/l

exposure time: 72 h

Bacteria toxicity: EC50:> 1,000 mg/L

Exposure time: 3 h

Toxicity to daphnia and other aquatic mollusks (chronic toxicity)

NOEC: 100 mg/L, exposure time: 21 D

Species: Daphnia magna

Method: OECD TG 211

12.2 Persistence and degradability

Biodegradability: Result: Organic Degradation is difficult. Biodegradation: 78.9%

Exposure Time: 28 D

Method: OECD Test Guideline 310

Result: It degrades biologically by itself.

Biodegradation: 100% Exposure Time: 28 D Method: OECD TG 301

12.3 Bio accumulative potential of partition coefficient: N-octanol/water: Log Pow: 0.18

12.4 Mobility in the soil :no data

12.5 results of PBT and VPVB assessment :without meaning

12.6 other negative effects: no data

For ingredient 2-BUTOXYETHANOL

Toxicity

Toxicity to fish LC50-other fish-220 mg/L-96 H

Toxicity to Daphnia EC50-Daphnia magna (The Great Nerylos)-1,815 mg/L-24 h and other aquatic mollusks.

Persistence and degradability:No data

Ratio BOD/ThBOD: 88%

Bioaccumulative potential

There is no data

Mobility in the soil

No data

Results of PBT and VPVB assessment

The substance/mixture does not contain ingredients that are considered either Persistence, Bio accumulative and Toxic (PBT) or highly Persistent and highly bio accumulative (VPVB) levels of 0.1% or higher.

Other negative effects

No data

GLYCOLIC ACID

12.1 Toxicity

Toxicity to fish

LC50 / 96 h / Pimephales promelas: 164 mg / l

Toxicity to aquatic plants

ErC50 / 72 h / Pseudokirchneriella subcapitata (green algae): 44 mg / l

Method: OECD TG 201

NOEC / 72 h / Pseudokirchneriella subcapitata (green algae): 20 mg / l

Method: OECD TG 201

Toxicity to aquatic invertebrates

EC50 / 48 h / Daphnia magna: 141 mg / l

Method: OECD TG 202

12.2. Persistence and degradability

Biodegradable

12.3. Bioaccumulative potential

No data available

Soil mobility

No data available

12.5. Results of the PBT and vPvB assessment

Assessment of PBT and vPvB

Unregistered PBT / unaltered vPvB

12.6. Other negative impacts

No data available

Section 13: Disposal considerations

The disposal of the product is done in accordance with European directives on waste and dangerous Waste. The codes of waste must be determined by the user, as far as possible in consultation with the services of waste disposal.

13.1 Waste management methods

Product:

If it is not possible to recycling, processing is performed in accordance with the instructions of the local authorities. The disposal of waste is done in approved companies destruction of wastes.

Uncleaned packagings:

Rejected as unused product. Empty containers must be transported in an approved licensed operator waste management for recycling or disposal. Do not use the empty containers. Vent in accordance with the state, and European regulations.

Guidelines for selecting Waste Code:

Wastes containing dangerous substances. If the product is subjected to further processing, the end user must redefine and give the most

Appropriate Code of the European Waste Catalog. It is the obligation of the author of the waste to determine the toxicity and the physical properties , the identity and

Methods of disposal of waste generated, in compliance with applicable European (EU Directive2008/98/EC) and local regulations.

The cleaning mean: Water.

Section 14: Transport information

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

14.1 UN Number **Unusable**
ADR, ADN, IMDG, IATA -

14.2 Proper shipping name **Unusable**
ADR, ADN, IMDG, IATA -

14.3 Transport hazard class **Unusable**
ADR, ADN, IMDG, IATA
Class -

14.4 Packing Group **Unusable**
ADR, IMDG, IATA -

14.5 Environmental hazards:
Environmentally dangerous: **Not**

14.6 Special precautions for user: **Unusable**

Section 15: Regulatory information

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

Regulation (EE) 2015/830

CLP Regulation 1272/2008/EC

REACH Regulation 1907/2006/EC

Detergents Regulation 648/2004/EC

Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents

Directive 94/33/EC for the protection of young people at work, as amended and in force. Directive 92/85/EEC on the implementation of measures aimed at improving the health and safety at work of pregnant workers, workers who have recently given birth, as amended and in force.

The surfactants contained in this preparation comply with the biodegradability criteria which are laid down in Regulation (EC) No.648/2004 for detergents. The data that support this statement is available to the competent authorities of the Member States and will be provided to them upon direct request or at the request of the detergent manufacturer

Ingredients in accordance with Regulation Detergents 648/2004/EC

Contains, among other things, at least 5% but below 15% anionic and non-ionic surfactants, under 5% phosphonates and soap. Contains preservative METHYLCHLOROISOTHIAZOLINONE, METHYLISOTHIAZOLINONE. May cause an allergic reaction.

15.2 Assessment chemical safety;

There has been no evaluation of chemical safety for the mixture

It contains inter alia at least 5% but less than 15% noionic surfactants.

and non-ionic,amphoteric surfactants, under 5%

It contains conservative methylisothiazolinone, benzisothiazolinone

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.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H412: Harmful to aquatic organisms, with long-term effects.

H302: Harmful if swallowed.

H 319 causes serious eye irritation.

H332: Harmful if inhaled

Footnotes and Acronyms:

DNEL - Secondary Level Without Effects

EUH - CLP Statement Specific risk

PBT - Persistent, Bioaccumulative, Toxic

PNEC - Predicted Concentration without Effects

Number REACH - Registration number REACH

vPvB - very Persistent and very Bioaccumulative

Footnotes and Acronyms:

ADN - European Agreement concerning the international carriage of dangerous goods by Inland waterways? ADR - the European Agreement concerning the international carriage of Dangerous goods? AICS - Australian inventory of chemical substances? ASTM - American Society for Testing and Materials? bw - body weight? CLP - Regulation on

Classification, labelling and packaging Regulation (EC) No. 1272/2008? CMR -

Carcinogenic, mutagenic substance toxic for reproduction; DIN - Model of

German Institute for Standardization? DSL - Summary of household substances (Canada)? ECHA -

The European Agency for chemical products; EC-Number - Number of European Community?

ECx - concentration associated with response x%? ELx - Percentage charge

Associated with response x%? EmS - Schedule an emergency? ENCS - Existing

And new chemicals (Japan)? ErCx - concentration associated with response rate

Increase x%? GHS - Global harmonized system? GLP - Good laboratory practice?

IARC International Investigations of Cancer? IATA - International Air Transport Association? IBC -

International Code for the construction and equipment of ships carrying dangerous

Chemicals in Bulk? IC50 - Half Maximum inhibitory concentration? ICAO - International Organization

Civil Aviation? IECSC - Inventory of Existing Chemical Substances in China? IMDG Code -

International Maritime Dangerous Goods Code? IMO - International Maritime Organization? ISHL
- Law on Industrial Safety and Health (Japan)? ISO - International Organization
Standardization? KECI - Inventory of Existing Chemical Substances in Korea? LC50 - Deadly
Concentration in 50% of the population test? LD50 - lethal dose in 50% of the population
Test (average lethal dose)? MARPOL - International Conference for the prevention of pollution
From ships? n.o.s. - Not otherwise specified? NO(A)EC concentration at which no
Observed (adverse) effects? NO(A)EL - the level at which are not observed
(Adverse) effects? NOELR - Percentage burden which are not observed
Effects? NZIoC - inventory of chemical substances in New Zealand; OECD - Organization
For Economic Cooperation and Development? OPPTS - Security Service Chemicals and
The prevention of pollution? PBT - Persistent, bioaccumulative and toxic substance? PICCS -
Inventory of chemical substances in the Philippines; (q)SAR - (quantitative structure-activity relationship)?
REACH - Regulation (EC) No 1907/2006 of the European Parliament and the Council
Concerning the registration, evaluation, authorisation and restriction of chemicals
Products? RID - Regulations for the international transport of dangerous
Goods? SADT - self-accelerating decomposition temperature? SDS - Data Sheet
Safety Data? TCSI - inventory of chemical substances in Taiwan? TRGS - Technical standard
For dangerous substances? TSCA - Law on the control of toxic substances (United States); UN
- United Nations? vPvB - Extremely durable and extremely persistent substance

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.