Safety Data Sheet

According to Regulation (EC) No.1907/2006

Version 1 Data of issue 14/09/2018

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

1.1 Product identifier Trade name: Zeo glow
1.2 Use of the substance / mixture Use of the substance/mixture: Liquid for dishwashers for drying and brightening dishes and glasses
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 : <u>zthellasgroup@gmail.com</u>

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 Skin corrosion (categ. 1A), H314

For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2 Label elements Labeling in accordance with Regulation (EC) 1272/2008



Warning word

Danger

Risk Statement (s)

H314: Causes severe skin burns and eye damage.

Preventive Statement (s)

P102 Keep out of reach of children.

P405 Store locked

P280: Wear protective gloves / protective clothing / eye / face protection.

P301 + P330 + P331: IF INHALED: Rinse mouth. DO NOT cause vomiting.

P303 + P361 + P353: IF ON SKIN (or hair): Remove all contaminated clothing immediately. Rinse skin with water / shower.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. If there are contact lenses, remove them if it is easy. Continue to rinse.

P309 + P311 IF exposed or inadmissible: Call a POISON CENTER or doctor.

2.3 Other hazards Corrosion of the skin (Category 1A), H314 due to ph

The substance / mixture does not contain ingredients that are considered to be either persistent, bioaccumulative and toxic (PBT) or highly persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Section 3: Composition/information on ingredients

3.1 Mixtures

| Component(s) | CAS-No | REACH No | Classification according to 1272/2008/EK | Concentration |
|---------------------------|-----------|-------------|---|---------------|
| | | | to 1272/2008/EK | % |
| Glycolic acid | 79-14-1 | 01- | Acute Tox. 4; H332 | 0% - 5 % |
| | | 2119485579- | Skin Corr. 1B; H314 | |
| | | 17 | Eye Dam. 1; H318 | |
| sodium p-cumenesulphonate | 15763-76- | 01- | Eye Irrit. 2 - H319 | 0% - 5 % |
| | 5 | 2119489411- | | |
| | | 37 | | |
| Isopropyl alcohol | 67-63-7 | 01- | Flamm. liquid 2, H225 | 5% -15% |
| | | 2119457558- | Eye irrit. 2, H319 | |
| | | 25 | STOT SE 3, H336 | |

For the full text of the H and EUH-phrases mentioned in this Section, see Section 16.

| ion 4: Firs | t Aid Measures |
|-----------------|--|
| 4.1 Desc | cription of First Aid Measures |
| General | advice: Consult a doctor. Show this safety data sheet to the doctor in |
| attenda | nce. |
| In case o | of inhalation: |
| In case o | of inhalation move to fresh air. If breathing is interrupted, apply artificial |
| respirat | ion. Consult a doctor. |
| In case o | of skin contact |
| Get rid o | of the contaminated clothes and shoes .Wash with soap and water. Consult a |
| doctor. | |
| In case o | of eye contact |
| Rinse w | ith plenty of water for at least 15 minutes and consult a doctor. |
| In case o | of ingestion |
| Do not i | nduce vomiting. Never give anything by mouth to an unconscious person. |
| Rinse m | outh with water. Consult a doctor. |
| 4.2 Mos | st important symptoms and effects, acute and subsequent |
| The mos | st important of the known symptoms and effects described in the labeling (see |
| section | 2.2) and / or in Chapter 11 |
| 4.3 India | cation of any immediate medical attention and special treatment needed |
| There a | re no elements. |
| | |
| Section | 5: Firefighting measures |

5.1 Fire-fighting equipment/ Appropriate firefighting equipment

Use spray water, mousse fixed in alcohol, dry extinguishing agent or carbon dioxide.

5.2 Specific hazards arising from the substance or mixture

There is no data.

5.3 Recommendations for firefighters

Do not try to combat fire without the appropriate protective equipment: Wear selfcontained breathing apparatus. **5.4** Further Information There is no elements

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Use personal protective clothing. Do not breathe fumes/ mist/ gas. Ensure adequate ventilation. Remove all sources of ignition. Attention to the vapors gathered together as they reach to explosive concentrations. Vapors can gather in areas of lower concentrations.

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.

6.3 Methods and materials for restriction and cleaning

The injected material must be collected with safe in sparks fume hood or with wet vacuuming and given in containers for disposal according to local legal regulations. Disposal of the product in suitable sealed containers.

Disposal of the product in suitable sealed col

6.4 Reference to other sections For rejection, see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Avoid skin and eyes contact. Avoid inhalation of fumes and fog.

Keep away from sources of ignition - No smoking. Take measures against electrostatic charging.

7.2 Conditions for safe storage, including any incompatibilities

Keep in a dry place. The reservoir must be kept tightly closed in a place with good ventilation.

The open containers must be closed carefully and stored upright, to avoid any oil leakage. Sensitive to carbon dioxide

7.3 Specific end use(s)

Some of its uses are mentioned in section 1.2, no other specific uses have been defined.

Section 8: Exposure controls/personal protection

8.1 Control Parameters

Ingredients with controlled parameters in the workplace SODIUM CUMENSULFONATE

Derivative levels with impact

| TYPE | EXPOSURE | PRICE | POPULATION | IMPACTS |
|------|-------------------------|------------------------|------------|----------|
| DNEL | Dermal | 7.6 mg/kg bw/day | workers | SYSTEMIC |
| DNEL | Long term | 53.6 mg/m ³ | workers | SYSTEMIC |
| DNEL | Long term | 3.8 mg/kg bw/day | consumers | SYSTEMIC |
| DNEL | Long term | 13.2 mg/m3 | consumers | SYSTEMIC |
| DNEL | Inhalation Long term | 3.8 mg/kg | consumers | SYSTEMIC |
| | oral | bw/day | | |

| TYPE | SPACE DETAILS | PRICE | METHODS DETAILS |
|------|---------------------------------------|-----------|--------------------|
| PNEC | Sweet water | 0.23 mg/l | Assessment factors |
| PNEC | Urban waste water treatment plants | 100 mg/l | Assessment factors |
| PNEC | pNECA continuous | 2.3 mg/l | Assessment factors |

2-PROPANOL

TWA 400 ppm LIMIT VALUE OF EXPOSURE

STEL 500 ppm LIMIT VALUE OF EXPOSURE

DNEL

| Propan-2-ol, | Total use : workers |
|-------------------|---|
| Isopropyl alcohol | EXPOSURE ROUTES:dermal |
| | Potential health damage: Long-term - systemic effects |
| | Price: 888 mg / cm2 |
| | |
| | Total use : workers |
| | |
| | EXPOSURE ROUTES:inhalation |
| | Potential health damage: Long-term - systemic |
| | effects |
| | Price: 500 mg / m3 |
| | Total use : consumers |
| | EXPOSURE ROUTES:dermal |
| | Potential health damage: Long-term – systemic |
| | effects |
| | Price: 319 mg / cm2 |
| | Total use : consumers |
| | EXPOSURE ROUTES:inhalation |
| | Potential health damage: Long-term - systemic |
| | effects |
| | Price: 89 mg / m3 |
| | Total use : consumers |
| | EXPOSURE ROUTES:swallowing |
| | Potential health damage: Long-term – systemic |
| | effects |
| | Price: 26ppm |
| | |

PNEC

| Propan-2-ol, | Sweet water |
|-------------------|--------------------------------|
| Isopropyl alcohol | Price: 140.9 mg/l |
| | Sea water |
| | Price :140.9 mg/l |
| | Intermittent use / release |
| | Sweet water Price: 552 mg / kg |

| Marine sediment Price: 552 mg / kg |
|---|
| Terrain Price: 28 mg / kg |
| Sewage treatment plant Price: 2251 mg / I |
| Oral Price: 160 mg / kg |

8.2 Exposure controls Appropriate engineering controls

The recommended protective measures for handling chemicals should be taken into account. Wash hands before breaks and at the end of work.

Personal protective equipment

Eye / face protection

Protective glasses that seal perfectly. Protective shield for the face. Use eye protection equipment tested and approved to the appropriate government standards, such as NIOSH (US) or EN 166 (EU).

Skin protection

Handle with gloves. The gloves should be examined before use. Use the correct glove removal technique (without touching the outer surface of the glove) to avoid skin contact with this product. Dispose of contaminated gloves after use, in accordance with applicable laws and good laboratory practice. Wash and dry hands

The protective gloves which are going to be used must comply with the requirements of EU Directive 89/689 / EEC and the standard EN 374 resulting therefrom.

Full contact Material: Nitrile rubber Minimum layer thickness: Duration: 480 Minutes Contact with droplets Material: Nitrile rubber Minimum layer thickness: Duration: 480 Minute

In case of use in solution or mixing with other substances and under deviations from those of EN 374, you should contact the supplier of EC approved gloves. This recommendation is only advisory and should be evaluated by the safety officer should be familiar with the specific circumstance that concerns the expected use by our customers

It should not be interpreted that approval is granted for each use case.

Body Protection

Full protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the workplace. Respiratory protection

When the risk assessment indicates that the use of respirators is appropriate, use a multipurpose US respirator or spare ventilator filters of the ABEK type (EN 14387) as an alternative to the mechanical controls. If the ventilator is the only protection, use a fullventilated respirator with an independent air supply. Use respirators and components tested and approved by state standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage and spillage if this is possible without risk. It is forbidden to enter into a sewer network. Elimination in the environment should be avoided.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| A) View Format: | liquid |
|--|--|
| B) Odour | Characteristic |
| C) Odour Threshold | There are no elements. |
| D) PH | 2 ± 0.5 |
| E) Melting point/freezing point | t Information not available |
| F) Initial boiling point and Boiling range | There are no elements. |
| G) Flashpoint | there are no elements. |
| H) Evaporation rate I) Flammability (solid, gas) J)Senior threshold Flammability or detonation K)Vapor pressure L)Vapor density M)Relative density N) Water solubility O)Partition coenfficient n-octanol/water | There are no elements. There are no elements. There are no elements There are no elements There are no elements There are no elements Soluble There are no elements |
| P)Temperature Auto –ignition Q)Temperature Decomposition R)Viscosity S)Explosive properties T)Oxidizing properties | There are no element There are no elements There are no elements There are no elements There are no elements |

9.2 No further information for security No data available

Section 10: Stability and reactivity

10.1 Reactivity
There are no elements.
10.2 Chemical stability
There are no elements.
10.3 Possibility of hazardous reactions
There are no elements.
10.4 Conditions to avoid
There are no elements.
10.5 Incompatible materials
Powerful oxidants
10.6 Hazardous decomposition products
Additional decomposition products - There are no elements. In case of fire :see section 5.

Section 11: Toxicological information

11.1 Information on toxicological effects

It concerns the ingredients

GLYCOLIC ACID

Acute oral toxicity LD50 / Rat: 2040 mg / kg Method: US EPA TG OPP 81-1 Method: OECD Test Guideline 401 Acute inhalation toxicity Acute toxicity estimate: 4.85 mg / I

LC50 / 4 h Rat: 3.6 mg / I Powder Acute dermal toxicity Acute toxicity / human assessment:> 5 000 mg / kg

Skin irritation Rabbit Classification: Corrosive Result: Causes burns. Method: OECD Test Guideline 404

Eye irritation Rabbit Classification: Causes serious burns. Result: Corrosive Method: OECD Test Guideline 405

Sensitization Waterwind Classification: Does not cause skin sensitization. Result: Does not cause skin sensitization. Method: OECD Test Guideline 406

Repeated dose toxicity Oral Rat NOAEL: 150 mg / kg Method: OECD Test Guideline 408 Changes in organ weight, Effects on the kidneys

Assessment of mutagenicity Experiments on animals showed no mutagenicity. Experiments on bacteria and mammalian cell cultures did not show a mutational effect.

Assessment of carcinogenicity Not classified as carcinogenic to humans. Experiments on animals have shown no carcinogenic effects.

Evaluation of Reproductive Toxicity No Reproduction Toxicity Animal experiments have shown no reproductive toxicity

Assessment of teratogenicity Data suggest that the substance is not a developmental toxin for animals.

Experiences in humans Excessive exposure may have the following harmful effects: breathe in Upper respiratory system, mucous membranes, bronchi: cough, shortness of breath, pain, local irritation Contact with skin Skin: Feeling, Irritation, Necrosis, Rash Eye contact Eyes: Severe irritation, Corrosion, Depigmentation Ingestion Mucocutaneous, Stomach, Kidney: Diarrhea, Vomiting, Gastrointestinal Disorders, Pain in the Underworld

SODIUM CUMENSULFONATE

Acute toxicity

| Kind | Result | Exposure |
|--------------------|-----------------|---|
| rabbit | >2000 mg/kg | - |
| rat - man,woman | >7000 mg/kg | |
| - | rabbit rat - | rabbit >2000 mg/kg rat - >7000 mg/kg |

Irritation/Corrosion

| Test | Kind | Exposure route | Result |
|---|--------|----------------|---------------|
| | | | |
| OECD 405 Acute Eye Irritation/ | rabbit | Eyes | Mild irritant |
| Corrosion OECD 404 Acute Dermal Irritation/ Corrosion | Rabbit | Skin | Mild irritant |

Sensitive substance

| Test | Exposure route | Kind | Result |
|--------------------------------|----------------|------------|------------------------------|
| OECD 406 Skin Sensitization | Skin | Guinea pig | Does not cause sensitization |

It concerns the 2-propanol

Acute toxicity LD50 Oral - Rat -Comments: Behavior: Different sleep time (including changing to reflex reflex). Behavior: Drowsiness (generally reduced action).

LC50 Inhalation - Rat - 8 h - 16000 ppm LD50 Skin - Rabbit - 12,800 mg / kg Skin corrosion and irritation Skin - Rabbit Result: Light skin irritation Severe damage / irritation of the eyes Eyes - Rabbit Result: Eye irritation - 24 h Respiratory sensitization or sensitization of the skin No data available Germ cell mutagenicity No data available. Carcinogenicity This product is or contains a component which can not be classified for its carcinogenicity according to the classification of IARC, ACGIH, NTP and EPA. IARC: 3 - Group 3: Not classified for human carcinogenicity (2-Propanol) Reproductive toxicity No data available. Specific target organ toxicity A single exposure Inhalation, Oral It may cause drowsiness or dizziness. Specific target organ toxicity repeated exposure No data available. Suction toxicity No data available.

Section 12: Ecological information

It concerns the ingredients

Glycolic acid

Toxicity to fish LC50 / 96 h / Pimephales promelas: 164 mg / I

Toxicity to aquatic plants ErC50 / 72 h / Pseudokirchneriella subcapitata (green algae): 44 mg / I Method: OECD TG 201 NOEC / 72 h / Pseudokirchneriella subcapitata (green algae): 20 mg / I Method: OECD TG 201

Toxicity to aquatic invertebrates EC50 / 48 h / Daphnia magna: 141 mg / I Method: OECD TG 202

Chronic toxicity to aquatic invertebrates there is no evidence

12.2. Persistence and degradability Biodegradability It is readily biodegradable according to OECD criteria. Biodegradable

12.3. Bioaccumulative potential there is no evidence

12.4. Mobility on the ground there is no evidence

12.5. Results of the PBT and vPvB assessment Assessment of PBT and vPvB Unregistered PBT / unaltered vPvB

12.6. Other negative effects there is no evidence

SODIUM CUMENSULFONATE

TOXICITY

| EPA OPPTS EPA OTS 797. | Acute | EC50 | 48 hours | Daphne | >1000 | mg/l |
|--------------------------------------|---------|---------|----------|----------|-------|------|
| 1300 (Aquatic Invertebrate Acute | | | Static | | | |
| Toxicity Test, Freshwater Daphnids) | | | | Seaweed | | |
| EPA OPPTS EPA OTS 797. | | | | | | |
| TUSU (Algal Toxicity, Tiers Land II) | Acute | EbC 50 | | | >230 | mg/l |
| | (biomas | | 96 hours | . | | |
| OECD 209 Activated Sludge, | , | | Static | Bacteria | | |
| | (rhythm | | | | >1000 | |
| | develop | oment)) | | | >1000 | mg/l |
| EPA OPPTS EPA OTS 797. 1400 | | | 3 hours | Fish | | |
| EPA OPPTS | Acute | LC50 | | seaweed | | |
| | | | Static | Seaweeu | >1000 | mg/l |
| | Chronic | NOEC | 96 hours | | | |
| | | | | | | |
| | | | Static | | | |

Persistence and degradability

| Test | Period | Result |
|--|---------|--------|
| OECD 301B Ready Biodegradability - CO2 Evolution Test | 28 days | 100 % |

Bioaccumulative potential

| LogPow | BCF | Eventual |
|--------|-----|----------|
| | | |
| -1.1 | - | Low |

It concerns the ingredient 2-propanol

12.1 Toxicity Toxicity to fish LC50 Pimephales promelas - 9,640.00 mg / I - 96 h Toxicity to daphnia and other aquatic molluscs EC50 - Daphnia magna - 5.102,00 mg / I - 24 h EC50 immobilization - Daphnia magna - 6.851 mg / I -24 h Toxicity to seaweed EC50 - Desmodesmus subspicatus (green algae) -> 2.000,00 mg / I - 72 h EC50 -Algae -> 1.000,00 mg / I - 24 h 12.2 Persistence and degradability No data available. 12.3 Possibility of bioaccumulation Bioaccumulation is not expected (log Pow <= 4). 12.4 Mobility on the ground No data available. 12.5 Results of the PBT and vPvB assessment The substance / mixture does not contain ingredients that are considered to be either persistent, bioaccumulative or toxic (PBT) or highly persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. 12.6 Other adverse effects No data available.

Section 13: Disposal considerations

13.1 Waste management methods

Product

Residues and non-recyclable solutions are delivered to an approved waste treatment company.

Unpacked packages (packages) Disposed of as unused product.

ANNEX 1) Disposal / Product 2) Disposal / Uncleaned packaging

20 01 29 * detergents containing dangerous substances

15 01 10 * packaging containing or contaminated by residues of dangerous substances

Section 14: Transport information

14.1 UN number 3265 ADR / RID: 3265 IMDG: 3265 IATA: 3265

14.2 UN proper shipping name

ADR / RID: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycolic acid)

IMDG: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycolic acid)

IATA: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycolic acid)

| 14.3 Transport hazard class (es) | | | |
|----------------------------------|---------|---------|--|
| ADR / RID: 8 | IMDG: 8 | IATA: 8 | |
| | | | |

| 14.4 Packing group | | |
|--------------------|----------|----------|
| ADR / RID: II | IMDG: II | IATA: II |

14.5 Environmental risks

ADR / RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user No data available

Section 15: Regulatory information

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

This Safety Data Sheet meets the requirements of Regulation (EC) 1907/2006 and CLP Regulation (EC) 1272/2008

According to the EC Detergent Regulation 648/2004: at least 5% but less than 15% nonionic surfactants and less than 5% anionic surfactants.

Observe employment restrictions in accordance with the Workers Protection Act (94/33 / EC).

15.2 Chemical Safety Assessment No data available

Section 16:Other information

Full text of H-Statements referred to in Section 3

H225 Highly flammable liquid and vapor.
H336 May cause drowsiness or dizziness
H319 Causes severe eye irritation.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H314 Causes severe skin burns and eye damage.
Flam. Liq. Flammable liquids
Skin Corr. Skin corrosion
Acute Tox. 4 (Inhalation)
STOT SE Specific Target Organ Toxicity - one-off exposure
Eye Dam./Irrit. Eye irritation

Further information

The above information is considered to be correct but does not include all data and should only be used as a guide. The information in this document is based on our current knowledge and does not constitute a guarantee for the product's properties.