# AEB IMPROVEMENT THROUGH BIOTECHNOLOGY

#### SAFETY DATA SHEET

# **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

#1/16

In conformity to Regulation (EU) 2015/830

# SECTION 1. Identification of the substance/mixture and of the company/enterprise

#### 1.1. Product identifier

Product name: GLUTASAN

Product code: refer to sales department

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

Detergent

Sectors of use:

Industrial Manufacturing[SU3], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Product category:

Washing and Cleaning Products (including solvent based products)

Not recommended uses

Do not use for purposes other than those listed

# 1.3. Details of the supplier of the safety data sheet

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# 1.4. Emergency telephone number

**AEB SpA** 



#### **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

#2/16

In conformity to Regulation (EU) 2015/830

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# **SECTION 2. Hazards identification**

#### 2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

GHS05, GHS07, GHS08, GHS09

Hazard Class and Category Code(s):

Acute Tox. 4, Skin Corr. 1B, Skin Sens. 1A, Eye Dam. 1, Resp. Sens. 1, Aquatic Acute 1, Aquatic Chronic 2

Hazard statement Code(s):

H302+H332 - Harmful if swallowed or if inhaled

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H400 - Very toxic to aquatic life. (Acute toxicity M-factor = 1)

H411 - Toxic to aquatic life with long lasting effects.

Harmful product: do not ingest or inhale

Corrosive product: causes severe skin burns and eye damage.

The product, if inhaled, can cause respiratory sensitization, and if brought into contact with skin can cause skin sensitization.

If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

The product is dangerous for the environment as it is very toxic to aquatic organisms

The product is dangerous to the environment as it is toxic to aquatic life with long lasting effects

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):

GHS05, GHS07, GHS08, GHS09 - Danger

Hazard statement Code(s):

H302+H332 - Harmful if swallowed or if inhaled

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H410 - Very toxic to aquatic life with long lasting effects.









# AEB IMPROVEMENT THROUGH BIOTECHNOLOGY

#### SAFETY DATA SHEET

# **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

#3/16

In conformity to Regulation (EU) 2015/830

Supplemental Hazard statement Code(s):

EUH071 - Corrosive to the respiratory tract.

Precautionary statements:

Prevention

P260 - Do not breathe mist/vapours/spray.

P280 - Wear protective gloves/clothing and eye/face

P284 - In case of inadequate ventilation wear respiratory protection.

Response

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Disposal

P501 - Dispose of contents/container to local/regional/national/international regulations

Contains:

Glutaraldehyde, Alkyl (C12-16) dimethylbenzyl ammonium chloride

Contains (Reg.EC 648/2004):

5% < 15% cationic surfactants, < 5% perfumes

Preservatives: Mixture of 5-chloro-2-methyl-2H- isothiazol-3-one [No. CE 247-500-7) and 2-methyl-2H-isothiazol-3-one [No. CE 220-239-6] (3:1)

# 2.3. Other hazards

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

Do not ingest. Keep out of reach of children.

# SECTION 3. Composition/information on ingredients

#### 3.1 Substances

Irrilevant

#### 3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration[ w/w]	Classification	Index	CAS	EINECS	REACh
Alkyl (C12-16) dimethylbenzyl ammonium chloride	>= 5 < 10%	Acute Tox. 4, H302; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Acute toxicity M-factor = 10		68424-85-1	270-325-2	01-2119965 180-41-XXX X
Glutaraldehyde	>= 5 < 10%	Acute Tox. 3, H301; Skin Corr. 1B, H314; Skin Sens. 1A, H317; Eye Dam. 1, H318;	605-022-00-X	111-30-8	203-856-5	01-2119455 549-26-XXX X



#### **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

#4/16

#### In conformity to Regulation (EU) 2015/830

Substance	Concentration[ w/w]	Classification	Index	CAS	EINECS	REACh
		Acute Tox. 2, H330; Resp. Sens. 1, H334; Aquatic Acute 1, H400; Aquatic Chronic 2, H411				

Glutaraldehyde and Alkyl (C12-16) dimethylbenzyl ammonium chloride in list of active substances and suppliers (art. 95)

#### **SECTION 4. First aid measures**

# 4.1. Description of first aid measures

#### General information

First aiders should be careful to protect themselves and use the recommended protective clothing (chemical resistant gloves, splash protection). If there is a possibility of exposure refer to section 8 for information on personal protective equipment.

#### Inhalation

Aerate the environment. Immediately remove the patient from the contaminated area and keep him at rest in a well ventilated area. Consult a doctor or poison control center immediately

Direct contact with the skin (of the pure product)

Take off contaminated clothing immediately. In case of contact with the skin, wash immediately and abundantly with water. Consult a physician immediately.

Direct contact with the eyes (of the pure product)

Wash immediately and abundantly with running water, with eyelids open, for at least 10 minutes; then protect the eyes with dry sterile gauze. Seek immediate medical attention. Do not use eye drops or ointments of any kind before the visit or the advice of the ophthalmologist.

#### Indestion

The product is noxious and can cause irreversible damage even following a single exposure by ingestion: if the person is fully conscious and cooperative, let him rinse his mouth with plenty of water. It is corrosive: absolutely do not induce vomiting or emesis.

Consult a doctor or poison control center immediately

## 4.2. Most important symptoms and effects, both acute and delayed

Ingestion may cause chemical burns in the mouth and throat as well as nausea and choking. Contact with skin may cause burns. In contact with eyes it causes very strong irritation, including redness and tearing. Inhalation can cause respiratory failure of an asthmatic nature; the irritation of the mucous membranes and the respiratory tract can cause nausea and difficulty in breathing.

#### 4.3. Indication of any immediate medical attention and special treatment needed

In case of ingestion and respiratory symptoms, contact a POISON CENTER or doctor. In case of skin and eye burns and redness, in case of skin irritation or rash: consult a doctor. Symptomatic treatment Maintain adequate ventilation and oxygen delivery to the patient. It can cause respiratory sensitization or asthma symptoms: bronchodilators, expectorants and antitussives can help. People who are subjected to significant exposure should be observed for 24-48 hours



#### **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

#5/16

In conformity to Regulation (EU) 2015/830

# **SECTION 5. Firefighting measures**

# 5.1. Extinguishing media

Recommended extinguishing media: Nebulized water, CO2, foam, chemical powders depending on the materials involved in the fire.

Extinguishing media to avoid: Water jets. Use water jets only to cool the surfaces of containers exposed to fire.

# 5.2. Special hazards arising from the substance or mixture

Under fire conditions, smoke may contain unidentified toxic and / or irritating compounds. Hazardous combustion products can include, but are not limited to, carbon monoxide and carbon dioxide.

# 5.3. Advice for firefighters

Keep unauthorized personnel away, isolate the danger area and deny access to unauthorized persons. To extinguish the combustible residues of this product, use water spray, carbon dioxide, dry chemical or foam. If possible contain the fire. The fire extinguishing water, if not contained, can cause environmental damage.

# **SECTION 6. Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

### 6.1.1 For non-emergency personnel:

Evacuate the area. Keep upwind of the spread.

# 6.1.2 For emergency responders:

Eliminate all open flames and possible sources of ignition. Not smoking. Provide adequate ventilation. Evacuate the danger area and, if necessary, consult an expert.

#### 6.2. Environmental precautions

Contain spills with earth or sand.

If the product has entered a watercourse, sewers or has contaminated soil or vegetation, notify the authorities. Dispose of the waste material in compliance with the regulations

# 6.3. Methods and material for containment and cleaning up

# 6.3.1 Containment:

Rapidly recover the product, wear a mask and protective clothing (for specifications refer to section 8.2. SDS) Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert materia or sucked it. Prevent it from entering the sewer system.

# 6.3.2 Cleaning up:

After wiping up, wash with water the area and materials involved

#### 6.3.3 Other information:

Small spills Wear the correct protective equipment and cover the liquid with absorbent material. Collect and seal the

#### **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

#6/16

In conformity to Regulation (EU) 2015/830

material and dirt that has absorbed the spilled material and dispose of in accordance with the regulations in force at an approved authorized waste disposal company. Rinse the rest of the spilled material with water. Large spills Activate emergency procedures. In the event of contamination of soil, sewerage, groundwater, lakes, etc., immediately call the competent authorities

#### 6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

# SECTION 7. Handling and storage

# 7.1. Precautions for safe handling

Avoid contact and inhalation of vapors. Wear protective gloves / clothing and eye / face protection In residential areas do not use on large surfaces. At work do not eat or drink. Do not eat, drink or smoke during use. Contaminated work clothing should not be allowed out of the workplace. See also the next paragraph 8

# 7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabelled containers.

Keep containers upright and safe by avoiding the possibility of falls or collisions.

Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

# 7.3. Specific end use(s)

Industrial Manufacturing:

Handle with care. Store in a well ventilated place away from heat sources. (7 ° C-30 ° C), in tightly closed original containers

Public domain (administration, education, entertainment, services, craftsmen):

Handle with care. Store in a well ventilated place away from heat sources. (7 ° C-30 ° C), in the original containers, tightly closed

# SECTION 8. Exposure controls/personal protection

# 8.1. Control parameters

================

Related to contained substances:

Alkyl (C12-16) dimethylbenzyl ammonium chloride:

Related to the substances contained:

Alkyl chloride (C12-16) dimethylbenzilammony:

It does not contain substances with professional exposure values.

Limits on professional exposure to decomposition products:

Hydrogen chloride (7647-01-0)

TWA 5ppm 8mg/m3 IT OEL

STEL 10ppm 15mg/m3 IT OEL

Hydrogen chloride (7647-01-0)

C 2 ppm 2007-01-01 ACGIH

further information: URT irt: Upper Respiratory Tract irritation

A4: Not classible as a human carcinogen

C 5ppm 7mg/m3 2013-10-08 NIOSH REL

C 5ppm 7mg/m3 2006-02-28 OSHA Z-1

C 5ppm 7mh/m3 1989-01-19 OSHA P0

PEL 0.3 ppm 0.45 mg/m3 2014-11-26 CAL PEL

C 2ppm 2014-11-26 CAL PEL



# **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

#7/16

In conformity to Regulation (EU) 2015/830

Glutaraldehyde:

Limit value - Eight hours

 $(ppm)/(mg/m^3)$ 

VLC 0,05 ppm (OEL (IT)) - ACGIH

Australia: x/x Austria: 0.1/0.4 Belgio: x/x/

Canada – Ontario: x/x Canada - Québec: x/x Denmark: 0.2/0.8 Finland: x/x France: 0.1/0.4

Germany (ASG): 0.05/0.2 Germany (DFG): 0.05/0.24

Ireland: x/x Israel: x/x Japan:

Japan - JSOH: 0.03(1)/x

Latvia: x/5

New Zealand:x/x Poland: x/0.4 Singapore: x/x South Korea: x/x Spain: x/x Sweden: x/x

Switzerland: 0.05/0.21 USA - NIOSH: x/x

United Kingdom: 0.05/0.2

Limit value - Short term (ppm)/(mg/m³)

Australia: 0.1(1)/0.41(1)

Austria: 0.1/0.4 Belgio: 0.05/0.21

Canada – Ontario: 0.5(1)/x Canada - Québec: 0.1(1)/0.41(1)

Denmark: 0.2/0.8 Finland: 0.1(1)/0.42(1) France: 0.2/0.8

Germany (ASG): 0.1(1)/0.4(1) Germany (DFG): 0.1(1)(2)/0.48

Ireland: 0.05(1)/0.2(1) Israel: 0.05(1)/0.21 Japan – JSOH: x/x

Latvia: x/x

New Zealand: 0.5/x Poland: x/0.6 Singapore: 0.2/0.82 South Korea: 0.05(1)/0.2(1)

Spain: 0.05/0.2 Sweden: 0.1(1)/0.4(1) Switzerland: 0.1/0.42 USA - NIOSH: 0.2(1)/0.8(1) United Kingdom: 0.05/0.2



# **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

#8/16

In conformity to Regulation (EU) 2015/830

Remarks:

Canada - Ontario (1) Respirable aerosol Canada - Québec (1) Ceiling limit value Finland (1) Ceiling limit value Germany (AGS) (1) 15 minutes average value

Germany (DFG) (1) STV 15 minutes average value (2) A momentary value of 0,2 ml/m³ (0,83 mg/gm³) should not be

exceeded.

Ireland (1) 15 minutes reference period

Israel (1) Ceiling limit value

Japan - JSOH (1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the

substance during a working day South Korea (1) Ceiling limit value Spain sen

Sweden (1) 15 minutes average value

USA - NIOSH (1) Ceiling limit value

- Substance: Alkyl (C12-16) dimethylbenzyl ammonium chloride

**DNEL** 

Systemic effects Long term Workers inhalation = 3,96 (mg/m3)

Systemic effects Long term Workers dermal = 5,7 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 1,64 (mg/m3)

Systemic effects Long term Consumers dermal = 3,4 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 3,4 (mg/kg bw/day)

**PNEC** 

Sweet water =  $0.0009 \, (mg/l)$ 

sediment Sweet water = 12,27 (mg/kg/sediment)

Sea water =  $0.00096 \, (mg/I)$ 

sediment Sea water = 13,09 (mg/kg/sediment)

STP = 0.4 (mg/I)

ground = 7 (mg/kg ground)

- Substance: Glutaraldehyde

**DNEL** 

Systemic effects Long term Workers inhalation = 0,21 (mg/m3)

Systemic effects Long term Workers dermal = 6,25 (mg/kg bw/day)

Systemic effects Short term Workers inhalation = 0,42 (mg/m3)

Local effects Long term Workers inhalation = 0,0106

**PNEC** 

Sweet water =  $0.0025 \, (mg/l)$ 

sediment Sweet water = 0,091 (mg/kg/sediment)

Sea water =  $0.00025 \, (mg/l)$ 

sediment Sea water = 0,009 (mg/kg/sediment)

intermittent emissions = 0,006 (mg/l)

STP = 0.8 (mg/l)

ground = 0,18 (mg/kg ground)

#### 8.2. Exposure controls

Appropriate engineering controls:

Industrial Manufacturing:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Public domain (administration, education, entertainment, services, craftsmen):

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# **SAFETY DATA SHEET**

# **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

#9/16

In conformity to Regulation (EU) 2015/830

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

#### 8.2.2 Individual protection measures:

### (a) Eye / face protection

When handling the pure product use safety glasses (EN 166).

# (b) Skin protection

(i) Hand protection

When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

(ii) Other

When handling the pure product, wear full protective clothing (generic workwear / antacid, safety shoes S3-EN ISO 20345) or other protective equipment, according to the instructions of the employer

# (c) Respiratory protection

Use adequate protective respiratory equipment (EN 14387:2008)

During manual operations in case of insufficient ventilation, use mask with gas filters and organic vapors - Brown , Class 3 , A ( EN 143 ) unless otherwise provided by the employer and / or assessments of environmental investigations hygienistic

(d) Thermal hazards No hazard to report

#### Environmental exposure controls:

Use according to good working practices and avoid to disperse the product into the environment.

# **SECTION 9. Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	Clear colorless liquid	
Odour	lemon	
Odour threshold	not determined as considered not relevant for the characterization of the product	
рН	7.5 ± 0.5 (20 ° C); 7.0 ± 0.5 (20 ° C, sol. 3%)	
Melting point/freezing point	not determined as considered not relevant for the characterization of the product	
Initial boiling point and boiling range	not determined as considered not relevant for the characterization of the product	
Flash point	not determined as considered not relevant for the characterization of the product	ASTM D92
Evaporation rate	not determined as considered not relevant for the characterization of the product	
Flammability (solid, gas)	not determined as considered not relevant for the characterization of the product	
Upper/lower flammability or explosive limits	not determined as considered not relevant for the characterization of the product	
Vapour pressure	not determined as considered not relevant for the characterization of the product	
Vapour density	not determined as considered not relevant for the characterization of the product	
Relative density	1.10 ± 0.05 (20 ° C)	



# **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

# 10 / 16

# In conformity to Regulation (EU) 2015/830

Physical and chemical properties	Value	Determination method
Solubility	in water	
Water solubility	miscible in all proportions	
Partition coefficient: n-octanol/water	not determined as considered not relevant for the characterization of the product	
Auto-ignition temperature	not determined as considered not relevant for the characterization of the product	
Decomposition temperature	not determined as considered not relevant for the characterization of the product	
Viscosity	not determined as considered not relevant for the characterization of the product	
Explosive properties	not determined as considered not relevant for the characterization of the product	
Oxidising properties	not determined as considered not relevant for the characterization of the product	

#### 9.2. Other information

No data available.

# SECTION 10. Stability and reactivity

# 10.1. Reactivity

No reactivity hazards

# 10.2. Chemical stability

Thermally stable at typical use temperature.

# 10.3. Possibility of hazardous reactions

There are no hazardous reactions

# 10.4. Conditions to avoid

None to report

# 10.5. Incompatible materials

Avoid contact with: amines, ammonia, strong acids and strong bases, strong oxidizing agents. Avoid contact with metals such as: aluminum, copper. iron



#### **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

#11/16

In conformity to Regulation (EU) 2015/830

# 10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

# SECTION 11. Toxicological information

# 11.1. Information on toxicological effects

ATE(mix) oral = 1.112,1 mg/kg

ATE(mix) dermal = ∞

ATE(mix) inhal = 4,7 mg/l/4(dust/ mist)

(a) acute toxicity: Harmful product: do not ingest or inhale

Alkyl (C12-16) dimethylbenzyl ammonium chloride: LD50 (rat)> 300 - 2000 mg / kg Guideline 401 for OECD test Skin contact -

LC50 rat / rabbit (mg / kg / 24h bw): nd Inhalation -

LD50 rat (mg / I / 4h): nd

Glutaraldehyde: Ingestion - LD50 rat (mg / kg / 24h bw): 77 Skin contact - LC50 rat / rabbit (mg / kg / 24h bw):> 1000 Inhalation - LD50 rat (mg / I / 4h) dust / mist: 0, 28-0,35

The vapors generated by the heated product or the mists can cause serious effects, even death. Vapors can cause severe irritation to the upper respiratory tract (nose and throat). Studies and medical reports have linked asthma and respiratory tract irritation with exposure to glutaraldehyde, especially in medical personnel. Asthma-like symptoms can occur in individuals predisposed to respiratory discomfort or other allergies. Asthmatic symptoms can include coughing, breathing difficulties and a feeling of tightness in the chest. The effects may be delayed. Occasionally breathing difficulties can endanger life.

(b) skin corrosion/irritationCorrosive product: causes severe skin burns and eye damage.

Alkyl (C12-16) dimethylbenzyl ammonium chloride: Causes severe skin burns

Glutaraldehyde: You may cause chemical burns.

Alkyl (C12-16) dimethylbenzyl ammonium chloride: Causes severe skin burns

Glutaraldehyde: corrosive

(c) serious eye damage/irritation: Corrosive product: causes severe skin burns and eye damage. - If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

Alkyl (C12-16) dimethylbenzyl ammonium chloride: Causes serious eye damage

Glutaraldehyde: May cause severe eye irritation with corneal injury that can evolve in permanent impairment of vision, even blindness.

Vapors may irritate eyes with light ailments and redness.

Alkyl (C12-16) dimethylbenzyl ammonium chloride: Causes serious eye damage

Glutaraldehyde: corrosive

(d) respiratory or skin sensitization: The product, if inhaled, can cause respiratory sensitization, and if brought into contact with skin can cause skin sensitization.

Alkyl (C12-16) dimethylbenzyl ammonium chloride: Not sensitizing

Glutaraldehyde: Sensitizing

(e) germ cell mutagenicity: Alkyl (C12-16) dimethylbenzyl ammonium chloride: Not mutagenic

Glutaraldehyde: Proved toxic to the fetus in laboratory animals at doses toxic. Did not cause birth defects in laboratory animals.

(f) carcinogenicity: Alkyl (C12-16) dimethylbenzyl ammonium chloride: Not carcinogenic

Glutaraldehyde: Non-Carcinogenic

(g) reproductive toxicity: Alkyl (C12-16) dimethylbenzyl ammonium chloride: Non-toxic for reproduction

Glutaraldehyde: In animal studies does not interfere on reproduction.

(h) specific target organ toxicity (STOT) single exposure: Alkyl (C12-16) dimethylbenzyl ammonium chloride: Non-toxic for single exposure

Glutaraldehyde: May cause respiratory irritation.

(i) specific target organ toxicity (STOT) repeated exposureAlkyl (C12-16) dimethylbenzyl ammonium chloride:

Non-toxic for repeated exposure

Glutaraldehyde: Repeated exposure may cause skin absorption of quantity that can cause death.

May cause nausea or vomiting



#### **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

# 12 / 16

In conformity to Regulation (EU) 2015/830

(j) aspiration hazard: Alkyl (C12-16) dimethylbenzyl ammonium chloride: Non-toxic by suction Glutaraldehyde: Aspiration into lungs can occur during swallowing or vomiting, causing tissue damage or lungs themselves

# SECTION 12. Ecological information

#### 12.1. Toxicity

Related to contained substances:

Alkyl (C12-16) dimethylbenzyl ammonium chloride:

LC50-96h fish (lepomis macrochirus):> 0.1 - 1 mg / I

EC50-48h aquatic invertebrates (daphnia magna):> 0.01 - 0.1 mg / I

EC50-72h algae (pseudokirchneriella):> 0.01 - 0.1 mg / I

NOEC-72h algae (pseudokirchneriella):> 0.001 - 0.01 mg / I

NOEC-21d aquatic invertebrates (daphnia magna):> 0.01 - 0.1 mg / I

Acute toxicity M-factor = 10

Glutaraldehyde:

Acute toxicity - fish LC50 (mg / I / 96h): 0.8 - Salmo gairdneri

Acute toxicity - crustaceans EC50 (mg / I / 48h): 2.1

Acute toxicity algae ErC50 (mg / I / 72-96h): 0.6

Chronic toxicity - fish NOEC (mg / I): 1.6

Chronic toxicity - crustaceans NOEC (mg / I / 21d): 5.0

Chronic algae toxicity - NOEC (mg / I): 0.025

The product is dangerous for the environment as it is very toxic to aquatic organisms following acute exposure. The product is dangerous for the environment as it is toxic to aquatic organisms following acute exposure.

Use according to good working practices and avoid to disperse the product into the environment.

#### 12.2. Persistence and degradability

Related to contained substances:

Alkyl (C12-16) dimethylbenzyl ammonium chloride:

Quickly biodegradable

Glutaraldehyde:

DOC removal: 90-100% after 28 days

easily biodegradable

# 12.3. Bioaccumulative potential

Related to contained substances:

Alkyl (C12-16) dimethylbenzyl ammonium chloride:

Bioaccumulation is unlikely

Glutaraldehyde:

not bioaccumulative

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#### SAFETY DATA SHEET

# **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

# 13 / 16

In conformity to Regulation (EU) 2015/830

### 12.4. Mobility in soil

Related to contained substances: Alkyl (C12-16) dimethylbenzyl ammonium chloride: No data available

Glutaraldehyde:

Henry's Law constant (H): 0.011 Pa \* m 3/mol

 $\log \text{ Koc} = 2.08 - 2.7$ 

#### 12.5. Results of PBT and vPvB assessment

No PBT/vPvB ingredient is present

### 12.6. Other adverse effects

No adverse effects

Regulation (EC) No 2006/907 - 2004/648

The (I) surfactant (s) content (s) in this preparation complies (comply) with (i) the biodegradability criteria as laid down in Regulation CE/648/2004 on detergents. All data are held at the disposal of the competent authorities of Member States and will be provided, at their direct request or at the request of a detergent manufacturer, to those authorities.

# SECTION 13. Disposal considerations

#### 13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.

Recover if possible. Send to authorized discharge plants or for incineration under controlled conditions. Operate according to local and National rules in force

#### **SECTION 14. Transport information**

#### 14.1. UN number

ADR/RID/IMDG/ICAO-IATA: 1760





If subject to the following characteristics is ADR exempt:

Combination packagings: per inner packaging 5 L per package 30 Kg

Inner packaging placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 5 L per package 20 Kg

# 14.2. UN proper shipping name

ADR/RID/IMDG: LIQUIDO CORROSIVO, N.A.S. (Glutaraldeide in mixture) ADR/RID/IMDG: CORROSIVE LIQUID, N.O.S. (Glutaraldehyde in mixture) ICAO-IATA: CORROSIVE LIQUID, N.O.S. (Glutaraldehyde in mixture)

# 14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class: 8

ADR/RID/IMDG/ICAO-IATA: Label: 8+Ambiente

ADR: Tunnel restriction code: E

ADR/RID/IMDG/ICAO-IATA: Limited quantities : 5 L

IMDG - EmS: F-A, S-B



#### **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

#14/16

In conformity to Regulation (EU) 2015/830

#### 14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: III

#### 14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is environmentally hazardous

IMDG: Marine polluting agent : Yes

# 14.6. Special precautions for user

The transport must be carried out by authorized vehicles for the transport of dangerous goods in accordance with the requirements of the applicable Edition of the agreement A.D.R. and national provisions. The transport must be carried out in the original packaging and in packages that are made from materials resistant to content and not likely to generate with this dangerous reactions. The process of loading and unloading of dangerous goods have received adequate training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and IBC Code

Transport in bulk is not foreseen

# **SECTION 15. Regulatory information**

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

Restrictions relating to the product or contained substances (All. XVII Reg. EC 1907/2006): not applicable Substances in Candidate List (art. 59 Reg. EC 1907/2006): the product does not contain SVHC Substances subject to authorisation (Ann. XIV Reg. CEC 1907/2006): the product does not contain SVHC

Reg. EC 648/04: see 2.2

Reg. (EU) n. 1169/2011: see 2.2 Reg (UE) 528/2012: see.to 2.2

Seveso category:

H2 - ACUTĚ TÓXIC

E1 - ENVIRONMENTAL HAZARDS

REGULATION (EU) No 1357/2014 - waste:

HP8 - Corrosive HP14 - Ecotoxic

# 15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

# **SECTION 16. Other information**

# AEB IMPROVEMENT THROUGH BIOTECHNOLOGY

#### SAFETY DATA SHEET

#### **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

# 15 / 16

In conformity to Regulation (EU) 2015/830

#### 16.1. Other information

Points modified compared to previous release: 2.2. Label elements, 2.3. Other hazards, 4.1. Description of first aid measures, 4.2. Most important symptoms and effects, both acute and delayed, 4.3. Indication of any immediate medical attention and special treatment needed, 5.1. Extinguishing media, 5.2. Special hazards arising from the substance or mixture, 5.3. Advice for firefighters, 6.1. Personal precautions, protective equipment and emergency procedures, 6.2. Environmental precautions, 6.3. Methods and material for containment and cleaning up, 6.4. Reference to other sections, 7.1. Precautions for safe handling, 7.3. Specific end use(s), 8.1. Control parameters, 8.2. Exposure controls, 10.2. Chemical stability, 10.4. Conditions to avoid, 10.5. Incompatible materials, 11.1. Information on toxicological effects, 12.1. Toxicity, 12.2. Persistence and degradability, 12.5. Results of PBT and vPvB assessment

Description of hazard statements set out in paragraph 3

H302 = Harmful if swallowed.

H314 = Causes severe skin burns and eye damage.

H318 = Causes serious eye damage.

H400 = Very toxic to aquatic life.

H410 = Very toxic to aquatic life with long lasting effects.

H301 = Toxic if swallowed.

H317 = May cause an allergic skin reaction.

H330 = Fatal if inhaled.

H334 = May cause allergy or asthma symptoms or breathing difficulties if inhaled

H411 = Toxic to aquatic life with long lasting effects.

Classification based on data of all mixture components

Main normative references:

Reg. (CE) n. 1907 del 18/12/06 REACH (Registration, Evaluation and Authorisation of CHemicals) et seq.

Reg. (CE) 1272/2008 CLP (Classification Labelling and Packaging) et seq.

Regulation (EC) n. 648 of 31/03/04 (on detergents) et seq.

Regulation (UE) n. 1169/2011 (on the provision of food information to consumers)

Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.

Regulation (UE) 528/2012 (Biocides) et seq.

Procedure used to classify under CLP mixture (Reg . EC 1272/2008): Calculation Method

Training required: This document must be submitted to the employer to determine the possible need for appropriate training for workers to ensure protection of human health and the environment.

n.a.: not applicable n.d.: not available

ADR: Accord europèen relative au transport International des merchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ATE: Acute Toxicity Estimat

BFC: BioconCentration Factor

**BOD: Biochemical Oxigen Demand** 

CAS: Chemical Abstract Service number

CAP: Centre AntiPoison

CE/EC number EINECS (European Inventory of existing Commercial Substances) e ELINCS (European List of notified Chemical Substances)

CL50/LC50: Lethal Concentration 50

DL50/LD50: Lethal Dose 50 COD: Chemical Oxygen Demand DNEL: Derived No Effect Level

EC50: half maximal Effective Concentration

**ERC:** Enviroment Release Classes

EU/UE: European Union

IATA: International Air Transport Association ICAO: International Civil Aviation Organization IMDG: International Maritime Dangerous Goods code



# **GLUTASAN**

Issued on 12/29/2020 - Rel. # 6 on 12/29/2020

# 16 / 16

In conformity to Regulation (EU) 2015/830

Kow: Octanol water partition coefficient NOEC: No Observed Effect Concentration OEL: Occupational Exposure Limit

PBT: Persistent Bioaccumulative and Toxic

PC: Product Categories

PNEC: Predicted No Effect Concentration

PROC: Process Categories

RID: Règlement concernent le transport International ferroviaire des merchandises dangereuses (Regulations

concerning International rail transport of dangerous goods)

STOT: Target Organ Systemic Toxicity STOT (RE): Repeated Exposure STOT (SE): Single Exposure STP: Sewage Treatment Plants

SU: Sector of Use

SVCH: Substance of Very High Concern

TLV: Threshold Limit Value

vPvB: Very Persistent Very Bioaccumulative

#### References and Sources:

- ECHA Registered Substances:
- https://echa.europa.eu/web/guest/information-on-chemicals/registered-substances
- SDS supplier
- GESTIS DNEL Database: http://www.dguv.de/ifa/gestis/gestis-dnel-datenbank/index-2.jsp
- GESTIS International Limit Value: http://limitvalue.ifa.dguv.de

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\*\*\* this tab annuls and replaces any previous edition. (IIXX)

Changes to the previous edition: sec 2,3,4,5,6,7,8,10,11,12