# AEB IMPROVEMENT THROUGH BIOTECHNOLOGY

#### SAFETY DATA SHEET

#### **STERISAN**

Issued on 10/22/2020 - Rel. # 6 on 10/22/2020

#1/15

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: STERISAN

Product code: refer to sales department

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

Alkaline cleaning

Sectors of use:

Industrial Manufacturing[SU3], Manufacture of food products[SU4]

Product category:

Washing and Cleaning Products (including solvent based products)

Process categories:

Use in batch and other process (syn- thesis) where opportunity for exposure arises[PROC4], Transfer of substance or mixture (charging and discharging) at dedicated facilities[PROC8B], Treatment of articles by dipping and pouring [PROC13]

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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Produced by AEB SpA Via Vittorio Arici 104 S. Polo



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25134 Brescia

#### 1.4. Emergency telephone number

AEB SpA

Centralino/Switchboard: +39.030.2307.1 - (h 8.30-12.00 13.30-18.00 GMT +1; Lingua/Language: Italiano, English)

**AEB USA** 

Switchboard: +1 2096258139 (GMT -8; Language: English)

AEB AFRICA (PTY) LTD

Switchboard: +27 215512700 (GMT +1; Language: English, Afrikaans)

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**AEB OCEANIA PTY LTD** 

Switchboard: +61 1300 704 971 (GMT +9; Language: English)

#### **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

Hazard Class and Category Code(s):

Met. Corr. 1, Skin Corr. 1, Eye Dam. 1, STOT SE 3

Hazard statement Code(s):

H290 - May be corrosive to metals.

H314 - Causes severe skin burns and eye damage.

H318 - Causes serious eye damage.

H335 - May cause respiratory irritation.

The product can be corrosive to metals

Corrosive product: causes severe skin burns and eye damage.

If inhaled, the product causes irritations to the respiratory tract.

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

#### 2.2. Label elements

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

Pictogram, Signal Word Code(s): GHS05, GHS07 - Danger



Hazard statement Code(s):

H290 - May be corrosive to metals.

H314 - Causes severe skin burns and eye damage.

H335 - May cause respiratory irritation.

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Supplemental Hazard statement Code(s): not applicable

Precautionary statements:

Prevention

P260 - Do not breathe dust.

P280 - Wear protective gloves/clothing and eye/face 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.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

Contains:

Sodium metasilicate penthaydrate, Sodium hydroxide

Contains (Reg.EC 648/2004):

5% < 15% phosphates, < 5% non-ionic surfactants

#### 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[<br>w/w] | Classification  | Index        | CAS        | EINECS    | REACh                         |
|----------------------------------|------------------------|---|--------------|------------|-----------|-------------------------------|
| Sodium metasilicate penthaydrate | >= 50 < 100%           | Met. Corr. 1, H290;<br>Skin Corr. 1B, H314;<br>STOT SE 3, H335  |              | 10213-79-3 | 229-912-9 | 01-2119449<br>811-37-XXX<br>X |
| Sodium hydroxide                 | >= 5 < 10%             | Met. Corr. 1, H290;<br>Skin Corr. 1A, H314;<br>Eye Dam. 1, H318 | 011-002-00-6 | 1310-73-2  | 215-185-5 | 01-2119457<br>892-27-XXX<br>X |



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#### 4.1. Description of first aid measures

#### Inhalation:

Ventilate the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated room, CALL A PHYSICIAN.

Direct contact with skin (of the pure product).:

Take off immediately contaminated clothing.

In case of contact with skin, wash immediately with watrer.

Immediately consult a physician.

Direct contact with eyes (of the pure product).:

Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately

Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

#### Inaestion:

Drink water with egg white; do not give bicarbonate.

Absolutely do not induce vomiting or emesis. Seek medical advice immediately.

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

No data available.

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

Immediately call a POISON CENTER or a doctor.

Call a POISON CENTER or a doctor if you feel unwell.

## **SECTION 5. Firefighting measures**

#### 5.1. Extinguishing media

Suggested extinguishing media:

Water spray, CO2, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing media to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

#### 5.2. Special hazards arising from the substance or mixture

No data available.

#### 5.3. Advice for firefighters

Use protection for the breathing apparatus

Safety helmet and full protective clothing.

The water spray can be used to protect the people involved in the extinction.

You may also use self-contained breathing apparatus, especially when working in confined and poorly ventilated areas.

Keep containers cool with water spray

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#### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1 For non-emergency personnel:

Leave the area surrounding the spill or release. Do not smoke Wear mask, gloves and protective clothing.

#### 6.1.2 For emergency responders:

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Privide a sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

#### 6.2. Environmental precautions

Contain spills

Inform the competent 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 elimination.

#### 6.3.2 Cleaning up:

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

#### 6.3.3 Other information:

None in particular.

#### 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

Wear protective gloves/clothing and eye/face protection.

In residential areas do not use on large surfaces.

At work do not eat or drink.

See also paragraph 8 below.

#### 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 extreme caution.

Store in a well ventilated place away from heat sources. (7-30°C)



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Manufacture of food products:

Handle with care.

Store in a clean, dry, ventilated area away from heat and direct sunlight.

Keep container tightly closed. (7-30°C)

See the annex exposure scenario.

#### **SECTION 8. Exposure controls/personal protection**

#### 8.1. Control parameters

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Related to contained substances:

Sodium hydroxide: Limit value – Eight hours

(ppm)/(mg/m3)

Austria: x/2 inhalable aerosol

Belgium: x/2 (1) Denmark: x/2 France: x/2 Hungary: x/2

Japan (JSOH): x/2(1)

Latvia: x/0,5 Poland: x/0,5 Romania: x/1 Spain: x/2 Sweden: x/1 (1)

Switzerland: x/2 inhalable aerosol (MAK)

USA - OSHA: x/2

Limit Value - Short Term

(ppm)/(mg/m3) Austalia: x/2(1)

Austria: x/4 inhalable aerosol Canada - Ontario: x/2(1) Canada – Québec: x/2(1)

Denmark: x/2 Finland: x/2(1) Hungary: x/2 Ireland: x/2(1) New Zealand: x/2(1)

People's Republic of China: x/2(1)

Poland: x/1 Romaniax/3(1) Singapore: x/2 South Korea: x/2(1) Sweden: x/2(1)(2)

Switzerland: x/2 inhalable aerosol (MAK)

USA – NIOSH: x/2(1) United Kingdom: x/2

Remarks:

Australia: (1) Celling limit value

Canada – Ontario: (1) Celling limit value Canada – Québec: (1) Celling limit value

Finland: (1) Celling limit value

Ireland: (1) 15 minutes reference period

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

substance during a working day New Zealand: (1) Celling limit value

People's Republic of China: (1) Celling limit value

South Korea: (1) Celling limit value Romania: (1) 15 minutes average value

Sweden: (1) Inhalable dust (2) Celling limit value USA – NIOSH: (1) Celling limit value (15 min)

Argentine: CMP-C: 2 mg mg/m3

Czech Republic: PEL 1 mg/m3/ NPK-P 2 mg/m3

Italy: OEL: ACGIH -STEL: C 2.0 mg/m3; Tipo OEL: ACGIH - STEL: C2 mg/m3 - Note: URT, eye, and skin irr

Estonia: short-term esposure limit (maximum chemical substance average allowable concentration in inhaled air - 15 minutes) 2 mg/m3(Ceiling limit" means a maximum permissible continuous concentration of 15 minutes in the air for

rapidly acting substances)

Norvay: ceiling value (a moment value that indicates the maximum concentration of a chemical in the breathing zone

that should not be exceeded) 2 mg/m3

Lithuania: NRD 2 mg/m3 Slovakia: NPEL 2 mg/m3

South Africa: Short Term OEL-CL 2 mg/m<sup>3</sup>

- Substance: Sodium metasilicate penthaydrate

DNEL

Systemic effects Long term Workers inhalation = 1,55 (mg/m3)

Systemic effects Long term Workers dermal = 0,74 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 6,22 (mg/m3)

Systemic effects Long term Consumers dermal = 1,49 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 0,74 (mg/kg bw/day)

**PNEC** 

Sweet water = 7.5 (mg/I)

Sea water = 1 (mg/l)

intermittent emissions = 7,5 (mg/l)

STP = 1000 (mg/l)

- Substance: Sodium hydroxide

DNEL

Systemic effects Short term Workers inhalation = 1 (mg/m3)

Systemic effects Short term Consumers inhalation = 1 (mg/m3)

Local effects Short term Workers inhalation = 1 (mg/m3)

Local effects Short term Consumers inhalation = 1 (mg/m3)

#### 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)

Manufacture of food products:

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

Wear protective goggles (EN 166).



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#### (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

During working operation wear protective clothing (generic workwear / antacid, safety shoes or other protective equipment) according to the instructions of the employer

#### (c) Respiratory protection

Not needed for normal use.

During manual operations in case of insufficient ventilation and/or provisions by the employer and/or environmental hygiene assessments, use mask with Universal filters type ABECK (UNI EN 405).

None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Use certified respiratory protection equipment meeting EU requirements (89/656/EEC, 245/2016 UE), or equivalent, when respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

# (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                                   | White powder  |                      |
| Odour  | not determined as considered not relevant for the characterization of the product |                      |
| Odour threshold                              | not determined as considered not relevant for the characterization of the product |                      |
| рН   | > 12,0 (20 ° C; 5% sol.)  |                      |
| 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 |                      |
| 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                             | 0.95 ± 0.05 (20 ° C)  |                      |



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| 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

Base

#### 10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

### 10.3. Possibility of hazardous reactions

Exothermic reaction with strong acids.

#### 10.4. Conditions to avoid

Avoid prolonged contact with air and the provisions of 10.3. Do not use on phenolic resins.

#### 10.5. Incompatible materials

It can generate flammable gases in contact with halogenated organic substances, elementary metals.



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#### 10.6. Hazardous decomposition products

It does not decompose when used for its intended uses.

#### **SECTION 11. Toxicological information**

#### 11.1. Information on toxicological effects

ATE(mix) oral =  $\infty$ ATE(mix) dermal =  $\infty$ ATE(mix) inhal =  $\infty$ 

(a) acute toxicity: Sodium metasilicate penthaydrate: Ingestion: Oral LD50 (rat): 1152-1349 mg/kg

Inhalation: LC50 (rat) > 2.06 g/m3

Skin: LD50 (rat) > 5000 mg/kg bw.

Sodium hydroxide: Ingestion - LD50 rat (mg / kg / 24h bw): nd

Skin contact - LC50 rabbit (mg / kg / 24h bw): 1350

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

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

Sodium metasilicate penthaydrate: Corrosive

Sodium hydroxide: Corrosive

Sodium metasilicate penthaydrate: Irritating

Sodium hydroxide: Irritating

(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.

Sodium metasilicate penthaydrate: Corrosive

Sodium hydroxide: Corrosive

Sodium metasilicate penthaydrate: Irritating

Sodium hydroxide: Irritating

(d) respiratory or skin sensitization: Sodium metasilicate penthaydrate: Not available

Sodium hydroxide: Not sensitizing

(e) germ cell mutagenicity: Sodium metasilicate penthaydrate: Not available

Sodium hydroxide: Not mutagenic

(f) carcinogenicity: Sodium metasilicate penthaydrate: Not available

Sodium hydroxide: Not carcinogenic

(g) reproductive toxicity: Sodium metasilicate penthaydrate: Not available

Sodium hydroxide: Non-toxic for reproduction

(h) specific target organ toxicity (STOT) single exposure: If inhaled, the product causes irritations to the respiratory

Sodium metasilicate penthaydrate: Not available

Sodium hydroxide: The substance can be absorbed into the body by inhalation of its aerosols and by ingestion.

(i) specific target organ toxicity (STOT) repeated exposureSodium metasilicate penthaydrate: Not available

Sodium hydroxide: The substance can be absorbed into the body by inhalation of its aerosols and by ingestion. The symptoms of pulmonary edema often do not manifest themselves before a few hours and are exacerbated by physical exertion. Rest and medical observation are therefore essential

(j) aspiration hazard: Sodium metasilicate penthaydrate: Not available

Sodium hydroxide: Not available



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### SECTION 12. Scological information

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Related to contained substances:

Sodium metasilicate penthaydrate:

(Brachydanio rerio): LC50 (96 hour): 210 mg/l Acute invertebrates toxicity (Daphnia magna): EC50 (48 hour): 1700 mg/l Algae/cyanobacteria (Scenedesmus subspicatus): EC50 (72 h, biomass): 207 mg/L EC50 (72 h, growth rate): > 345.4 mg/L

Sodium hydroxide:

Acute toxicity - LC50 fish (mg / I / 96h): 45

Acute toxicity - crustaceans EC50 (mg / I / 48h): 40

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

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

Chronic toxicity - crustaceans NOEC (mg / I): nd

Chronic toxicity NOEC algal (mg / I): nd

C(E)L50 (mg/l) = 45

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

#### 12.2. Persistence and degradability

Related to contained substances:

Sodium metasilicate penthaydrate:

Not biodegradable

Sodium hydroxide:

Not applicable

#### 12.3. Bioaccumulative potential

Related to contained substances: Sodium metasilicate penthaydrate:

Not bioaccumulative

Sodium hydroxide:

Not bioaccumulative

#### 12.4. Mobility in soil

Related to contained substances:

Sodium metasilicate penthaydrate:

Not available

Sodium hydroxide:

Not applicable



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#### 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. Operate according to local or national regulations

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

#### 14.1. UN number

ADR/RID/IMDG/ICAO-IATA: 3262

8

If subject to the following characteristics is ADR exempt:
Combination packagings: per inner packaging 1 kg per package 30 Kg
Inner packaging placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 1 kg per package 20 Kg

#### 14.2. UN proper shipping name

ADR/RID/IMDG: SOLIDO INORGANICO CORROSIVO, BASICO, N.A.S. (Idrossido di sodio e sodio metasilicato in miscela)

ADR/RID/IMDG: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide and sodium metasilicate in mixture)

ICAO-IATA: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Sodium hydroxide and sodium metasilicate in mixture)

#### 14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class: 8 ADR/RID/IMDG/ICAO-IATA: Label: 8 ADR: Tunnel restriction code: E

ADR/RID/IMDG/ICAO-IATA: Limited quantities: 1 kg

IMDG - EmS : F-A, S-B

#### 14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: II

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#### 14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous

IMDG: Marine polluting agent: No

#### 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

REGULATION (EU) No 1357/2014 - waste:

HP5 - Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

HP8 - Corrosive

#### 15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

#### **SECTION 16. Other information**

#### 16.1. Other information

Description of hazard statements set out in paragraph 3

H290 = May be corrosive to metals.

H314 = Causes severe skin burns and eye damage.

H335 = May cause respiratory irritation.



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H318 = Causes serious eye damage.

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):

Physical hazards: On the basis of experimental data

H314 Skin. Corr. 1A: On the basis of experimental data / Calculation Method

Other hazards: 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

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 (INC): Repeated Exposure STOT (SE): Single Exposure STP: Sewage Treatment Plants

SU: Sector of Use

SVCH: Substance of Very High Concern

TLV: Threshold Limit Value



#### **STERISAN**

Issued on 10/22/2020 - Rel. # 6 on 10/22/2020

# 15 / 15

In conformity to Regulation (EU) 2015/830

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

This msds was made in good faith by AEB technical Office on the basis of the information available at the date of the last revision. The person in charge must regularly inform the employees about the specific risks they encounter when using this substance/product. The information contained here relate only to the substance/the preparation indicated and may not apply if the product is used improperly or in combination with others. Nothing contained herein shall be construed as a guarantee, either express or implied. It is the responsibility of the user to ensure the opportunities and completeness of the information contained herein for their own particular use.

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

Changes to the previous edition: label elements variation, exposure scenario updating, attached working instruction table

#### **SUMI**

#### **Safe Use of Mixtures Information**





# AISE\_SUMI\_IS\_4\_2

Version 1.1, August 2018

### Industrial uses; Automated task; Semi-automated task; Dedicated equipment

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

#### General description of the process covered

The SUMI applies to industrial uses where products are used in closed process where opportunity for exposure arises. This Safe Use Information is based on the AISE\_SWED\_IS\_4\_2.

#### **Operational Conditions**

| Maximum duration       | 480 minutes per day.   |
|------------------------|--|
| Range of application / | Indoor Use.  |
| Process conditions     | Process carried out at room temperature.                                 |
|                        | In case of dilution, tap water at a maximum temperature of 45°C is used. |
| Air exchange rate      | Provide a basic standard of general ventilation (1 to 3 air changes per  |
|                        | hour). No LEV required.  |

#### **Risk Management Measures**

| Measures related to  | Wear suitable gloves.   |  |
|--|---|--|
| personal protective equipment (PPE), hygiene and health evaluation | See section 8 of the SDS of this product for specifications.          |  |
|  | Training of workers in relation to proper use and maintenance of PPEs |  |
|  | must be ensured.  |  |
| Environmental  | Prevent that undiluted product reaches surface waters.                |  |
| measures   | If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use    |  |
|  | resulting in release to municipal sewage treatment plant.             |  |

#### Additional good practice advice

| Don't eat or drink. Don't smoke. Don't use in proximity of open flame.                 |   |
|--|---|
| Wash hands after use. Avoid contact with damaged skin. Do not mix with other products. |   |
| Spillage instructions  | Dilute with fresh water and mop up.   |
| Hygiene practices  | Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS. |

#### Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

#### **Disclaimer**

This is a document for communicating generic conditions of safe use of a product. It is the responsibility of the formulator to link this SUMI to the SDS of a specific product that he is selling.

If a SUMI (or associated SWED) code is mentioned in the SDS of a product, the formulator of that product declares that all substances in the mixture are present in such concentration, that the use of the product within the conditions of the SUMI is safe. When available, this safe use is ensured by evaluating the results of the chemical safety assessments as performed by the raw material suppliers. When no chemical safety assessment has been carried out by the supplier for an ingredient that contributes to the classification of the mixture, the formulator has performed a safety assessment himself.

Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.

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#### **SUMI**

#### **Safe Use of Mixtures Information**





# AISE\_SUMI\_IS\_8b\_1

Version 1.1, August 2018

#### Transfer and dilution of concentrated product by using dedicated dosing system

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

#### General description of the process covered

This SUMI applies to industrial uses where products are transferred to or diluted in a dedicated dosing system. This Safe Use Information is based on the AISE\_SWED\_IS\_8b\_1\_L and AISE\_SWED\_IS\_8b\_1\_S

#### **Operational Conditions**

| Maximum duration       | 60 minutes per day.  |
|------------------------|--|
| Range of application / | Indoor Use.  |
| Process conditions     | Process carried out at room temperature.                                 |
|                        | In case of dilution, tap water at a maximum temperature of 45°C is used. |
| Air exchange rate      | Provide a basic standard of general ventilation (1 to 3 air changes per  |
|                        | hour). No LEV required.  |

#### **Risk Management Measures**

| Measures related to                                     | Wear suitable gloves.  |
|---|--|
| personal protective equipment (PPE), hygiene and health | See section 8 of the SDS of this product for specifications.                           |
| evaluation  |  |
|   | Training of workers in relation to proper use and maintenance of PPEs must be ensured. |
| Environmental   | Prevent that undiluted product reaches surface waters.                                 |
| measures  | If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use                     |
|   | resulting in release to municipal sewage treatment plant.                              |

#### Additional good practice advice

| Don't eat or drink. Don't smoke. Don't use in proximity of open flame.                 |   |
|--|---|
| Wash hands after use. Avoid contact with damaged skin. Do not mix with other products. |   |
| Spillage instructions  | Dilute with fresh water and mop up.   |
| Hygiene practices  | Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS. |

#### Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

#### **Disclaimer**

This is a document for communicating generic conditions of safe use of a product. It is the responsibility of the formulator to link this SUMI to the SDS of a specific product that he is selling.

If a SUMI (or associated SWED) code is mentioned in the SDS of a product, the formulator of that product declares that all substances in the mixture are present in such concentration, that the use of the product within the conditions of the SUMI is safe. When available, this safe use is ensured by evaluating the results of the chemical safety assessments as performed by the raw material suppliers. When no chemical safety assessment has been carried out by the supplier for an ingredient that contributes to the classification of the mixture, the formulator has performed a safety assessment himself.

Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.

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#### **SUMI**

#### **Safe Use of Mixtures Information**





# AISE\_SUMI\_IS\_13\_3\_G

Version 1.1, August 2018

#### Industrial uses; Treatment of articles by dipping or pouring

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

#### General description of the process covered

This SUMI applies to industrial uses where articles are treated by dipping or pouring. This Safe Use Information is based on the AISE\_SWED\_IS\_13\_3.

#### **Operational Conditions**

| Maximum duration          | 480 minutes per day.   |
|---------------------------|--|
| Range of application /    | Indoor Use.  |
| <b>Process conditions</b> | Process carried out at room temperature.                                 |
|                           | In case of dilution, tap water at a maximum temperature of 45°C is used. |
| Air exchange rate         | Provide a basic standard of general ventilation (1 to 3 air changes per  |
|                           | hour). No LEV required.  |

#### **Risk Management Measures**

| Measures related to | Wear suitable gloves and eye protection.                              |
|---------------------|---|
| personal protective | See section 8 of the SDS of this product for specifications.          |
| equipment (PPE),    |   |
| hygiene and health  |   |
| evaluation          |   |
|                     | Training of workers in relation to proper use and maintenance of PPEs |
|                     | must be ensured.  |
| Environmental       | Prevent that undiluted product reaches surface waters.                |
| measures            | If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use    |
|                     | resulting in release to municipal sewage treatment plant.             |

#### Additional good practice advice

| Don't eat or drink. Don't smoke. Don't use in proximity of open flame.                 |   |
|--|---|
| Wash hands after use. Avoid contact with damaged skin. Do not mix with other products. |   |
| Spillage instructions  | Dilute with fresh water and mop up.   |
| Hygiene practices  | Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS. |

#### Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

#### **Disclaimer**

This is a document for communicating generic conditions of safe use of a product. It is the responsibility of the formulator to link this SUMI to the SDS of a specific product that he is selling.

If a SUMI (or associated SWED) code is mentioned in the SDS of a product, the formulator of that product declares that all substances in the mixture are present in such concentration, that the use of the product within the conditions of the SUMI is safe. When available, this safe use is ensured by evaluating the results of the chemical safety assessments as performed by the raw material suppliers. When no chemical safety assessment has been carried out by the supplier for an ingredient that contributes to the classification of the mixture, the formulator has performed a safety assessment himself.

Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.

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# **WORKING ISTRUCTION TABLE**



This tab provides instructions for appropriate and safe use of products and proper management of emergency situations for cleaning staff/users.

#### Attached to MSDS rel#6 del 10/22/20

| Use description                                    | Use in batch and other process (synthesis) where opportunity for exposure arises [PROC4]; Transfer of substance or mixture (charging and discharging) at dedicated facilities [PROC8b]; Treatment of articles by dipping and pouring [PROC13], |
|--|--|
| Product name                                       | STERISAN   |
| Classification of the product (100%)               | H290 - May be corrosive to metals. H314 - Causes severe skin burns and eye damage. H318 - Causes serious eye damage. H335 - May cause respiratory irritation.  |
| Classification of the diluted product (maximum use | At maximux concentration of use (5%) the product is classified:  |
| concentration)                                     | H290 - May be corrosive to metals.<br>H314 - Causes severe skin burns and eye damage.<br>H318 - Causes serious eye damage.   |
| Handling of the product (100%)                     | Avoid contact and inhalation of dust Wear protective gloves/protective clothing/eye protection/face protection. At work do not eat or drink.   |
| Handling of the diluted product                    | Avoid contact and inhalation of vapors Wear protective gloves/protective clothing/eye protection/face protection. At work do not eat or drink.   |
| DPI required concentrated use)                     | Chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3), safety glasses (EN 166).  |
| Diluited product                                   | Chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3), safety glasses (EN 166).  |

| In case of emergency (accidents involving exposure to the product)  Accidental release large quantities measures: concentrated product | Immediately inform the customer. Immediately inform the employer. Contact Poisons Centres tel. number in 1.4 section of the MSDS  Wear gloves, mask, glasses and protective clothing (for specifications refer to section 8.2. SDS). Possibly absorb it with inert materia or sucked it. After wiping up, wash with water the area and materials involved |
|--|---|
| Diluited product   | Wear gloves, mask, glasses and protective clothing (for specifications refer to section 8.2. SDS). Possibly absorb it with inert materia or sucked it. After wiping up, wash with water the area and materials involved   |
| Storage of the product   | 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.   |
| In case of accidents, emergency or fire  | Immediately inform the customer. Follow company emergency instruction.  |