AEBIMPROVEMENT THROUGH BIOTECHNOLOGY

SAFETY DATA SHEET

STERYL Damigiane

Issued on 06/27/2018 - Rel. # 4 on 06/27/2018

#1/12

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: STERYL Damigiane Product code: refer to sales department

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

Antiseptic / Sulphites / Antioxidants

Sectors of use:

Industrial Manufacturing[SU3], Manufacture of food products[SU4], Public domain (administration, education,

entertainment, services, craftsmen)[SU22]

Product category:

Process aid for enological use

Not recommended uses

Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

AEB SpA - Via Vittorio Arici 104 S.Polo - 25134 Brescia (BS) Italy

Tel. +39.030.2307.1 Fax +39.030.2307281

E-mail: info@aeb-group.com - Internet: www.aeb-group.com E-mail tecnico competente/technical dept.: sds@aeb-group.com

AEB USA 111 N Cluff Avenue Lodi CA 95240 (USA)

Tel: +1 2096258139 Fax: +1 2092248953

Email: info@aebusa.com - Internet: www.aeb-group.com

g i

AEB AFRICA (PTY) LTD 18 Track Crescent, Cor. Station Road Montague Gardens 7441

Cape Town (South Africa)
Tel.: +27 215512700 - Fax: +27 (0) 215511919

Email: info@aeb.co.za - Internet: www.aeb-group.com

AEB OCEANIA PTY LTD 113 Hanwood Avenue

Hanwood

NSW 2680 (Australia) Tel: +61 1300 704 971

Email: aeboceania@aeb-group.com - Internet: www.aeb-group.com

Produced by AEB SpA Via Vittorio Arici 104 S. Polo 25134 Brescia



STERYL Damigiane

Issued on 06/27/2018 - Rel. # 4 on 06/27/2018

#2/12

In conformity to Regulation (EU) 2015/830

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 BIOCHEMICAL USA

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

AEB AFRICA (PTY) LTD

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

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:

GHS09

Hazard Class and Category Code(s):

Aquatic Chronic 2

Hazard statement Code(s):

H411 - Toxic to aquatic life with long lasting effects.

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): GHS09

Hazard statement Code(s):

H411 - Toxic to aquatic life with long lasting effects.

Supplemental Hazard statement Code(s): not applicable

Precautionary statements:

NOTED: other Precautionary statements:

Prevention

P273 - Avoid release to the environment.

Disposa

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

Contains:

Information concerning the components: solid paraffin, allyl isosulfocyanate in the form of essence of MUSTARD





STERYL Damigiane

Issued on 06/27/2018 - Rel. # 4 on 06/27/2018

#3/12

In conformity to Regulation (EU) 2015/830

0,5% (Mustard and products thereof in compliance with Regulation (EU) No 1169/2011 - Annex II and subsequent additions and modifications)

Exclusively for professional use. For limited food use, oenological use.

2.3. Other hazards

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

No information on other hazards

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	Classification	Index	CAS	EINECS	REACh
ALLYL ISOTHIOCYANATE	> 0,1 <= 1%	Flam. Liq. 3, H226; Acute Tox. 3, H301; Acute Tox. 2, H310; Skin Irrit. 2, H315; Eye Irrit. 2, H339; Acute Tox. 2, H330; STOT SE 3, H335; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Acute toxicity M-factor = 10 Chronic toxicity	muox	57-06-7	200-309-2	KEAGII

SECTION 4. First aid measures

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 area. If you feel unwell seek medical advice.

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

Wash thoroughly with soap and running water.

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

Wash immediately and thorougly with running water for at least 10 minutes.

Ingestion:

Not hazardous. It's possible to give activated charcoal in water or medicinal mineral vaseline oil.

AEB

SAFETY DATA SHEET

STERYL Damigiane

Issued on 06/27/2018 - Rel. # 4 on 06/27/2018

#4/12

In conformity to Regulation (EU) 2015/830

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

In contact with skin it may cause irritation.
In contact with eyes it may cause redness and tearing.
Prolonged inhalation may cause headache, drowsiness.

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

No data available.

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 and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)

Keep containers cool with water spray

SECTION 6. Accidental release measures

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 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



STERYL Damigiane

Issued on 06/27/2018 - Rel. # 4 on 06/27/2018

#5/12

In conformity to Regulation (EU) 2015/830

6.3. Methods and material for containment and cleaning up

6.3.1 Containment:

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

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.

Manufacture of food products:

Handle with care.

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

Keep container tightly closed.

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

Handle with care. Store in a ventilated area and away from heat, keep the container tightly closed.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

No data available.

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)

STERYL Damigiane

Issued on 06/27/2018 - Rel. # 4 on 06/27/2018

#6/12

In conformity to Regulation (EU) 2015/830

Manufacture of food products:

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):

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 RSPP

(c) Respiratory protection

Not required when proper ventilation is provided. Alternatively use protective mask.

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

Related to contained substances:

ALLYL ISOTHIOCYANATE:

Eyes/face: goggles, chemical agents are recommended. Wash contaminated glasses before reuse. Hand protection: compatible chemical-resistant gloves are recommended. Wash gloves before reuse.

Other Wear personal protection: measures should be taken to ensure that the materials coming into contact with the eyes or on the skin.

Wear protective clothing and eyeshields.

Respiratory protection: In case of insufficient ventilation, use suitable respiratory equipment.

In the case of short exposure, use a device filter.

Skin protection: protective clothing lightweight recommended. Wash contaminated clothing before reuse. Avoid inhalation and in contact with skin and eyes.

Technical controls-ventilation: do not breathe fumes.

Required a mechanical exhaust. In areas circumscribed or poorly ventilated, using a proper respiratory protection may be required.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	Yellowish discs	
Odour	pungent	



STERYL Damigiane

Issued on 06/27/2018 - Rel. # 4 on 06/27/2018

#7/12

In conformity to Regulation (EU) 2015/830

Physical and chemical properties	Value	Determination method
Odour threshold	not determined as considered not relevant for the characterization of the product	
рН	not determined as considered not relevant for the characterization of the product	
Melting point/freezing point	60-90 °C	
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	0.85 - 0.95	
Relative density	not determined as considered not relevant for the characterization of the product	
Solubility	not determined as considered not relevant for the characterization of the product	
Water solubility	not determined as considered not relevant for the characterization of the product	
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

No hazardous reaction when handled and stored according to provisions.

AEB

SAFETY DATA SHEET

STERYL Damigiane

Issued on 06/27/2018 - Rel. # 4 on 06/27/2018

#8/12

In conformity to Regulation (EU) 2015/830

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

Nothing to report

10.5. Incompatible materials

None in particular.

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 = 19.607,8 mg/kg ATE(mix) dermal = 9.803,9 mg/kg ATE(mix) inhal = 98,0 mg/l/4 h

(a) acute toxicity: ALLYL ISOTHIOCYANATE: Ingestion - LD50 rat (mg / kg / 24h bw): nd

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

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

(b) skin corrosion/irritationALLYL ISOTHIOCYANATE: Non-corrosive

ALLYL ISOTHIOCYANATE: Irritating

(c) serious eye damage/irritation: ALLYL ISOTHIOCYANATE: Non-corrosive

ALLYL ISOTHIOCYANATE: Irritating

- (d) respiratory or skin sensitization: ALLYL ISOTHIOCYANATE: based on the available data, the criteria for classification are not met
- (e) germ cell mutagenicity: ALLYL ISOTHIOCYANATE: based on the available data, the criteria for classification are not met
 - (f) carcinogenicity: ALLYL ISOTHIOCYANATE: based on the available data, the criteria for classification are not met
- (g) reproductive toxicity: ALLYL ISOTHIOCYANATE: based on the available data, the criteria for classification are not met
 - (h) specific target organ toxicity (STOT) single exposure: ALLYL ISOTHIOCYANATE: May cause respiratory irritation.
- (i) specific target organ toxicity (STOT) repeated exposureALLYL ISOTHIOCYANATE: based on the available data, the criteria for classification are not met
- (j) aspiration hazard: ALLYL ISOTHIOCYANATE: based on the available data, the criteria for classification are not met

SECTION 12. Ecological information

12.1. Toxicity

Related to contained substances:

ALLYL ISOTHIOCYANATE:

Acute toxicity - LC50 fish (mg /l/ 96h): nd Acute toxicity - crustaceans EC50 (mg / l / 48h): nd Acute toxicity algae ErC50 (mg / l/ 72-96h): nd Chronic toxicity - NOEC fish (mg / l): nd Chronic toxicity - crustaceans NOEC (mg / l): nd Chronic toxicity NOEC algal (mg / l): nd

Acute toxicity M-factor = 10



STERYL Damigiane

Issued on 06/27/2018 - Rel. # 4 on 06/27/2018

#9/12

In conformity to Regulation (EU) 2015/830

Chronic toxicity M-factor = 10

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: ALLYL ISOTHIOCYANATE: Not available

12.3. Bioaccumulative potential

Related to contained substances: ALLYL ISOTHIOCYANATE: Not available

12.4. Mobility in soil

Related to contained substances: ALLYL ISOTHIOCYANATE: Not available

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No adverse effects

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

AEB

SAFETY DATA SHEET

STERYL Damigiane

Issued on 06/27/2018 - Rel. # 4 on 06/27/2018

10 / 12

In conformity to Regulation (EU) 2015/830

14.1. UN number

ADR/RID/IMDG/ICAO-IATA: 3077



If subject to the following characteristics is ADR exempt:

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

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

14.2. UN proper shipping name

ADR/RID/IMDG: MATERIA PERICOLOSA PER L'AMBIENTE, SOLIDA, N.A.S.(Allyl isothiocyanate in mixture) ADR/RID/IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Allyl isothiocyanate in mixture) ICAO-IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Allyl isothiocyanate in mixture)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class: 9

ADR/RID/IMDG/ICAO-IATA: Label: 9+Ambiente

ADR: Tunnel restriction code: --

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

IMDG - EmS : F-A, S-F

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

STERYL Damigiane

Issued on 06/27/2018 - Rel. # 4 on 06/27/2018

11 / 12

In conformity to Regulation (EU) 2015/830

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

Seveso category:

E2 - ENVIRONMENTAL HAZARDS

REGULATION (EU) No 1357/2014 - waste:

HP14 - Ecotoxic

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

H226 = Flammable liquid and vapour.

H301 = Toxic if swallowed.

H310 = Fatal in contact with skin.

H315 = Causes skin irritation.

H319 = Causes serious eye irritation.

H330 = Fatal if inhaled.

H335 = May cause respiratory irritation.

H400 = Very toxic to aquatic life.

H410 = Very 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.

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



STERYL Damigiane

Issued on 06/27/2018 - Rel. # 4 on 06/27/2018

12 / 12

In conformity to Regulation (EU) 2015/830

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 (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

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: labelling change