

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
Printdate 11 Oct 2023

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product name:

Avermectin B1a

#### 1.1. Catalog No.:

677788

#### 1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical  
uses: R&D

#### 1.3. Uses advised against:

HPC Standards GmbH  
Am Wieseneck 7

04451 Cunnersdorf  
Deutschland

Tel. +49 34291 3372-36  
Fax. +49 34291 3372-39  
contact@hpc-standards.com

#### 1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36  
This number is only available during office hours.

### 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture  
Regulation (EC) No 1272/2008  
Acute toxicity - Oral Category 2 - (H300)  
Acute toxicity - Dermal Category 3 - (H311)  
Acute toxicity - Inhalation (Dusts/Mists) Category 1 - (H330)  
Reproductive toxicity Category 2 - (H361)  
Specific target organ toxicity -- repeated exposure Category 1 - (H372)  
Acute aquatic toxicity Category 1 - (H400)  
Chronic aquatic toxicity Category 1 - (H410)

#### 2.2. Label elements

##### 2.2.1. Pictogram



##### 2.2.2.

## 2.2. Label elements

265-610-3

Contains Avermectin B1a

Signal word

Danger

Hazard statements

H300 - Fatal if swallowed

H311 - Toxic in contact with skin

H330 - Fatal if inhaled

H361d - Suspected of damaging the unborn child

H372 - Causes damage to organs through prolonged or repeated exposure

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P260 - Do not breathe dust/fume/gas/mist/vapours/spray

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

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

P310 - Immediately call a POISON CENTER or doctor

P391 - Collect spillage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

## 2.3. Other hazards

No information available.

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

This product does not contain any known or suspected endocrine disruptors.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Chemical name

Avermectin B1a

CAS: 65195-55-3

EC No (EU

Index No): 265-610-3

Classification according

to Regulation (EC) No.

1272/2008 [CLP]

Acute Tox. 1 (H330)

Acute Tox. 2 (H300)

Acute Tox. 3 (H311)

Repr. 2 (H361d)

STOT RE 1 (H372)

Aquatic Acute 1

(H400)

Aquatic Chronic 1

(H410)

Acute Toxicity Estimate

No information available

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No.

1907/2006 (REACH), Article 59)

### 3.1.1. Formula

C<sub>48</sub>H<sub>72</sub>O<sub>14</sub>

### 3.1.2. Molecular Weight (g/mol)

873.08

### 3.1.3. CAS-No.

65195-55-3

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

General advice Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Inhalation If breathing has stopped, give artificial respiration. Get medical attention immediately.

Remove to fresh air. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen.

Eye contact Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing.

Skin contact Get immediate medical advice/attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Ingestion Get immediate medical advice/attention. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person.

Self-protection of the first aider Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe dust. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Use personal protective equipment as required. See section 8 for more information.

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

Symptoms Coughing and/ or wheezing. Difficulty in breathing.

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

Note to doctors Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

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

Specific hazards arising from the chemical

No information available.

### 5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

## 6. ACCIDENTAL RELEASE MEASURES

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

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid generation of dust. Do not breathe dust. Keep people away from and upwind of spill/leak.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

### 6.2. Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

### 6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

### 6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash it before reuse. Do not breathe dust. Avoid generation of dust. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

General hygiene considerations Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Do not breathe dust. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place.

Keep out of the reach of children. Please refer to the manufacturers certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA.

### 7.3. Specific end use(s)

Risk Management Methods: The information required is contained in this Safety Data Sheet.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC)

No information available.

### 8.2. Exposure controls

#### Personal protective equipment

Eye/face protection Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves. Impervious gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

Glove material: Wear protective butyl rubber gloves

Skin and body protection Long sleeved clothing. Chemical resistant apron. Wear suitable protective clothing.

**Respiratory protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**General hygiene considerations** Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Do not breathe dust. Take off contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

**Environmental exposure controls** Do not allow into any sewer, on the ground or into any body of water.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Physical state Solid

Appearance Solid

Colour off-white

Odour No information available.

Odour threshold No information available

Property Values

Melting point / freezing point 155 - 157 °C None known

Initial boiling point and boiling range No data available

Flammability No data available

Flammability Limit in Air

Upper flammability or explosive limits

No data available

Lower flammability or explosive limits

No data available

Flash point No data available

Autoignition temperature No data available

Decomposition temperature

pH No data available

pH (as aqueous solution) No data available

Kinematic viscosity No data available

Dynamic viscosity No data available

Water solubility No data available

Solubility(ies) No data available

Partition coefficient No data available

Vapour pressure No data available

Relative density No data available

Bulk density No data available

Liquid Density No data available

Relative vapour density No data available

Particle characteristics

Particle Size No information available

Particle Size Distribution No information available

### 9.2. Other information

Molecular weight 873.08

Molecular formula C<sub>48</sub>H<sub>72</sub>O<sub>14</sub>

#### 9.2.1. Information with regards to physical hazard classes

Not applicable

#### 9.2.2. Other safety characteristics

No information available

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Excessive heat.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. Fatal if inhaled. (based on components).

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available. Toxic in contact with skin. (based on components).

Ingestion Specific test data for the substance or mixture is not available. Fatal if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Coughing and/ or wheezing. Difficulty in breathing.

Numerical measures of toxicity

No information available

Acute toxicity

Unknown acute toxicity

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitisation No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.

STOT - single exposure No information available.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

H372 - Causes damage to the following organs through prolonged or repeated exposure: nervous system.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

## 12. ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.  
12.6. Endocrine disrupting properties  
Endocrine disrupting properties No information available.  
12.7. Other adverse effects  
No information available.

### 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods  
Waste from residues/unused Dispose of in accordance with local regulations. Dispose of waste in accordance with products environmental legislation.  
Contaminated packaging  
Do not reuse empty containers.

### 14. TRANSPORT INFORMATION

#### IATA

14.1 UN number or ID number UN2811  
14.2 UN proper shipping name Toxic solid, organic, n.o.s. (Avermectin B1a)  
14.3 Transport hazard class(es) 6.1  
14.4 Packing group I  
Description UN2811, Toxic solid, organic, n.o.s. (Avermectin B1a), 6.1, I  
14.5 Environmental hazards Yes  
14.6 Special precautions for user  
Special Provisions A3, A5  
ERG Code 6L

#### IMDG

14.1 UN number or ID number UN2811  
14.2 UN proper shipping name Toxic solid, organic, n.o.s. (Avermectin B1a)  
14.3 Transport hazard class(es) 6.1  
14.4 Packing group I  
Description UN2811, Toxic solid, organic, n.o.s. (Avermectin B1a), 6.1, I, Marine pollutant  
14.5 Marine pollutant P  
Environmental hazards Yes  
14.6 Special precautions for user  
Special Provisions 274  
EmS-No F-A, S-A No information available  
14.7 Maritime transport in bulk  
according to IMO instruments  
No information available

#### RID

14.1 UN number or ID number UN2811  
14.2 UN proper shipping name Toxic solid, organic, n.o.s. (Avermectin B1a)  
14.3 Transport hazard class(es) 6.1  
14.4 Packing group I  
Description UN2811, Toxic solid, organic, n.o.s. (Avermectin B1a), 6.1, I, Environmentally Hazardous  
14.5 Environmental hazards Yes  
14.6 Special precautions for user  
Special Provisions 274, 614  
Classification code T2

#### ADR

14.1 UN number or ID number UN2811  
14.2 UN proper shipping name Toxic solid, organic, n.o.s. (Avermectin B1a)  
14.3 Transport hazard class(es) 6.1  
14.4 Packing group I  
Description UN2811, Toxic solid, organic, n.o.s. (Avermectin B1a), 6.1, I, (C/E), Environmentally Hazardous  
14.5 Environmental hazards Yes  
14.6 Special precautions for user  
Special Provisions 274, 614

Classification code T2  
Tunnel restriction code (C/E)

## 15. REGULATORY INFORMATION

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

National regulations

Germany

Water hazard class (WGK) non-hazardous to water (nwg)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This

product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

DIRECTIVE (EU) 2021/1187 on the marketing and use of explosives precursors

Not applicable

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

H1 - ACUTE TOXIC

H2 - ACUTE TOXIC

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

15.2. Chemical safety assessment

Chemical Safety Report A Chemical Safety Assessment has been carried out for this substance

## 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!