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Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 06 Mar 2024

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

1.1. Product name:

Mandestrobin

1.1. Catalog No.:

685562

1.2. Relevant identified uses of the substance or mixture

Identified uses: Laboratory chemical
R&D

1.3. Uses advised against:

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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
· Classification according to Regulation (EC) No 1272/2008
GHS09 environment
Aquatic Acute 1 H400 Very toxic to aquatic life.
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

2.2. Label elements

2.2.1. Pictogram

2.2.2.

· 2.2 Label elements
· Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.
· Hazard pictograms

GHS09
· Signal word Warning
· Hazard statements
H410 Very toxic to aquatic life with long lasting effects.
· Precautionary statements
P273 Avoid release to the environment.
P391 Collect spillage.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· 2.3 Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

· 3.1 Chemical characterisation: Substances
· CAS No. Description
173662-97-0 Mandestrobin
· Identification number(s) None
· EC number: 694-980-2
· Index number: 616-225-00-8
· RTECS: -
· Additional information: For the wording of the listed hazard phrases refer to section 16.

3.1.1. Formula

C19H23NO3

3.1.2. Molecular Weight (g/mol)

313.39

3.1.3. CAS-No.

173662-97-0

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4. FIRST AID MEASURES

· 4.1 Description of first aid measures
· After inhalation: Supply fresh air; consult doctor in case of complaints.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact: Rinse opened eye for several minutes under running water.
· After swallowing: Rinse mouth. Do not induce vomiting.
· 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
· 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5. FIRE-FIGHTING MEASURES

· 5.1 Extinguishing media
· Suitable extinguishing agents: Use fire extinguishing methods suitable for surrounding conditions.
· 5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
· 5.3 Advice for firefighters
· Protective equipment: Wear self-contained respiratory protective device.

6. ACCIDENTAL RELEASE MEASURES

· 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.
· 6.2 Environmental precautions:
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· 6.3 Methods and material for containment and cleaning up: Pick up mechanically.
· 6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. HANDLING AND STORAGE

· 7.1 Precautions for safe handling Store in cool, dry place in tightly closed receptacles.
· Information about fire - and explosion protection: No special measures required.
· 7.2 Conditions for safe storage, including any incompatibilities
· Storage:
· Requirements to be met by storerooms and receptacles:
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.
Keep container in a well ventilated place. Keep away from sources of ignition and heat.
· Information about storage in one common storage facility: Store away from foodstuffs.
· Further information about storage conditions: None.
· 7.3 Specific end use(s) No further relevant information available.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

· 8.1 Control parameters
· Additional information about design of technical facilities: No further data; see item 7.
· Ingredients with limit values that require monitoring at the workplace: Not required.
· Additional information: Lists used were valid at the time of SDS preparation.
· 8.2 Exposure controls
· Personal protective equipment:
· General protective and hygienic measures: Wash hands before breaks and at the end of work.
· Respiratory protection:
Not required.
Use suitable respiratory protective device in case of insufficient ventilation.
· Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374
Protective gloves
· Material of gloves Butyl rubber, BR
· Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· Eye protection: Safety glasses

9. PHYSICAL AND CHEMICAL PROPERTIES

· 9.1 Information on basic physical and chemical properties
· General Information
· Appearance:
Form: Solid
Colour: White
· Odour: Odourless
· Odour threshold: Not determined.
· pH-value: Not applicable.
· Change in condition
Melting point/freezing point: 99 °C
Initial boiling point and boiling range: 296 °C
· Flash point: Not applicable.
· Flammability (solid, gas): Not determined.
· Ignition temperature: Not determined
· Decomposition temperature: Not determined.
· Auto-ignition temperature: Not determined.
· Explosive properties: Not determined.
· Explosion limits:
Lower: Not determined.
Upper: Not determined.
· Vapour pressure: Not applicable.
· Density at 20 °C: 1.23 g/cm³
· Relative density Not determined.
· Vapour density Not applicable.
· Evaporation rate Not applicable.
· Solubility in / Miscibility with DCM, Acetone, Ethyl acetate, Methanol, Toluene
· water: Not determined.
· Partition coefficient: n-octanol/water: 3.5 logP
· Viscosity:
Dynamic: Not applicable.
Kinematic: Not applicable.
· 9.2 Other information No further relevant information available.

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10. STABILITY AND REACTIVITY

· 10.1 Reactivity
Stable under normal conditions.
No further relevant information available.
· 10.2 Chemical stability Stable under normal conditions.
· Thermal decomposition / conditions to be avoided:
Formation of toxic gases is possible during heating or in case of fire.
· 10.3 Possibility of hazardous reactions No dangerous reactions known.
· 10.4 Conditions to avoid Heat.
· 10.5 Incompatible materials: Strong oxidizing agents.
· 10.6 Hazardous decomposition products:
Formation of toxic gases is possible during heating or in case of fire.

11. TOXICOLOGICAL INFORMATION

· 11.1 Information on toxicological effects
· Acute toxicity Based on available data, the classification criteria are not met.
· LD/LC50 values relevant for classification:
Oral LD50 >2,000 mg/kg (rat)
Dermal LD50 >2,000 mg/kg (rat)
Inhalative (LC50/4h) >4.96 mg/l (rat)
· Primary irritant effect:
· Skin corrosion/irritation Based on available data, the classification criteria are not met.
· Serious eye damage/irritation Based on available data, the classifcation criteria are not met.
· Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
· Additional toxicological information:
· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
· Germ cell mutagenicity Based on available data, the classification criteria are not met.
· Carcinogenicity Based on available data, the classification criteria are not met.
· Reproductive toxicity Based on available data, the classification criteria are not met.
STOT-single exposure Based on available data, the classification criteria are not met.
· STOT-repeated exposure Based on available data, the classification criteria are not met.
· Aspiration hazard Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

· 12.1 Toxicity
· Aquatic toxicity:
LC50/96 h 0.43 mg/l (crustacean)
0.94 mg/l (fish)
· 12.2 Persistence and degradability No further relevant information available.
· 12.3 Bioaccumulative potential No further relevant information available.
· 12.4 Mobility in soil No further relevant information available.
· Ecotoxicological effects:
· Remark: Very toxic for fish
· Additional ecological information:
· General notes:
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
· 12.5 Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.
· 12.6 Other adverse effects No further relevant information available

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13. DISPOSAL CONSIDERATIONS

· 13.1 Waste treatment methods
· Recommendation
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· European waste catalogue
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.
· Uncleaned packaging:
· Recommendation: Dispose of in accordance with national regulations.

14. TRANSPORT INFORMATION

· 14.1 UN-Number
· ADR, IMDG, IATA UN3077
· ADR 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Mandestrobin)
· IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Mandestrobin), MARINE POLLUTANT
· IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Mandestrobin)
· 14.3 Transport hazard class(es)
· ADR, IMDG, IATA
· Class 9 Miscellaneous dangerous substances and articles.
· Label 9
· 14.4 Packing group
· ADR, IMDG, IATA III
· 14.5 Environmental hazards:
· Marine pollutant: Symbol (fish and tree)
· Special marking (ADR): Symbol (fish and tree)
· Special marking (IATA): Symbol (fish and tree)
· 14.6 Special precautions for user Warning: Miscellaneous dangerous substances and articles.
· Hazard identification number (Kemler code): 90
· EMS Number: F-A,S-F
· Stowage Category A
· Stowage Code SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.
· Transport/Additional information:
· ADR
· Limited quantities (LQ) 5 kg
· Excepted quantities (EQ) Code: E1
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 1000 g
· Transport category 3
· Tunnel restriction code -
· UN "Model Regulation": UN 3 0 7 7 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANDESTROBIN), 9, III

15. REGULATORY INFORMATION

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
· Directive 2012/18/EU
· Named dangerous substances - ANNEX I Substance is not listed.
· Seveso category E1 Hazardous to the Aquatic Environment
· Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t
· Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t
· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex II
Substance is not listed.

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· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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!