

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) Classifications according to Regulation (EC) No 1272/2008. Printdate 16 Aug 2022

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

1.1. Product name:

Bitertanol

1.1. Catalog No.:

673483

1.2. Relevant identified uses of the substance or mixture Identified: Laboratory chemical uses: R&D

uses:

1.3. Uses advised against:

HPC Standards GmbH Am Wieseneck 7

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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 Flammable liquids (Category 2), H225 Eye irritation (Category 2), H319 Specific target organ toxicity - single exposure (Category 3), H336 For the full text of the H-Statements mentioned in this Section, see Section 16. Classification according to EU Directives 67/548/EEC or 1999/45/EC F Highly flammable R11 Xi Irritant R36 Xi Irritant R36 R66 R67

2.2. Label elements

2.2.1. Pictogram





2.2.2.

- Signal word Danger
- Hazard statement(s)
- H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.

- Precautionary statement(s) P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Supplemental Hazard information (EU)

- EUH066 Repeated exposure may cause skin dryness or cracking.
- 2.3 Other hazards none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances Formula : C4H8O2 Molecular Weight : 88,11 g/mol CAS-No. : 141-78-6 EC-No. : 205-500-4 Index-No. : 607-022-00-5 Pegiatration pumber : 01 21104 Registration number : 01-2119475103-46-XXXX Hazardous ingredients according to Regulation (EC) No 1272/2008 Component Classification Concentration Ethyl acetate CAS-No. EC-No. Index-No. Registration number 141-78-6 205-500-4 607-022-00-5 01-2119475103-46-XXXX Flam. Liq. 2; Eye Irrit. 2; STOT SE 3; H225, H319, H336, EUH066 <= 100 % Hazardous ingredients according to Directive 1999/45/EC Component Classification Concentration Ethyl acetate CAS-No. EC-No. Index-No. Registration number 141-78-6 205-500-4 607-022-00-5 01-2119475103-46-XXXX F, Xi, R11 - R36 - R66 - R67 <= 100 %

3.1.1. Formula

C20H23N3O2



3.1.2. Molecular Weight (g/mol)

337.42

3.1.3. CAS-No.

55179-31-2

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance. If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician. In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in

section 11

4.3 Indication of any immediate medical attention and special treatment needed no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. 5.2 Special hazards arising from the substance or mixture no data available 5.3 Advice for firefighters Wear self contained breathing apparatus for fire fighting if necessary. 5.4 Further information Use water spray to cool unopened containers.



6.1 Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). 6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature: 2 - 8 °C

7.3 Specific end use(s) no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties a) Appearance Form: clear, liquid Colour: colourless b) Odour no data available c) Odour Threshold no data available d) pH no data available
e) Melting point/freezing point Melting point/range: -84 °C f) Initial boiling point and boiling range 76,5 - 77,5 °C g) Flash point -3,0 °C - closed cup h) Evapouration rate no data available i) Flammability (solid, gas) no data available j) Upper/lower flammability or explosive limits explosive limits Upper explosion limit: 11,5 %(V) Lower explosion limit: 2,2 %(V) k) Vapour pressure 97,3 hPa at 20,0 °C I) Vapour density no data available m) Relative density 0,90 g/cm3 n) Water solubility soluble o) Partition coefficient: noctanol/ water water log Pow: 0,73 p) Auto-ignition temperature 427,0 °C q) Decomposition tëmperature no data available r) Viscosity no data available s) Explosive properties no data available t) Oxidizing properties no data available 9.2 Other safety information Surface tension 24,0 mN/m at 20,0 °C

10. STABILITY AND REACTIVITY

10.1 Reactivity no data available 10.2 Chemical stability no data available 10.3 Possibility of hazardous reactions no data available 10.4 Conditions to avoid Heat, flames and sparks. Extremes of temperature and direct sunlight. 10.5 Incompatible materials Strong oxidizing agents 10.6 Hazardous decomposition products Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects Acute toxicity LD50 Oral - rat - 5.620 mg/kg



LC50 Inhalation - mouse - 2 h - 45.000 mg/m3 LD50 Dermal - rabbit - > 18.000 mg/kg Skin corrosion/irritation May cause skin irritation and/or dermatitis. Serious eye damage/eye irritation no data available Respiratory or skin sensitisation no data available Germ cell mutagenicity no data available Carcinogenicity This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. Reproductive toxicity no data available Specific target organ toxicity - single exposure May cause drowsiness or dizziness. Specific target organ toxicity - repeated exposure no data available Aspiration hazard no data available Additional Information RTECS: AH5425000 Inhalation of high concentrations may cause:, Headache, Drowsiness, Dizziness, Vomiting, narcosis, anemia, Central nervous system depression Kidney - Irregularities - Based on Human Evidence

12. ECOLOGICAL INFORMATION

12.1 Toxicity no data available 12.2 Persistence and degradability no data available 12.3 Bioaccumulative potential no data available 12.4 Mobility in soil no data available 12.5 Results of PBT and vPvB assessment no data available 12.6 Other adverse effects no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods Product Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contaminated packaging Dispose of as unused product.



14. TRANSPORT INFORMATION

14.1 UN number ADR/RID: 1173 IMDG: 1173 IATA: 1173 14.2 UN proper shipping name ADR/RID: ETHYL ACETATE IMDG: ETHYL ACETATE IATA: Ethyl acetate 14.3 Transport hazard class(es) ADR/RID: 3 IMDG: 3 IATA: 3 14.4 Packaging group ADR/RID: 11 IMDG: II IATA: II 14.5 Environmental hazards ADR/RID: no IMDG Marine Pollutant: no IATA: no 14.6 Special precautions for user no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture no data available 15.2 Chemical Safety Assessment no data available

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!