



Hangzhou Tianlong Biotechnology Co., Ltd.

Add: Room 1906, Fengqi Times Tower, No.338, Fengqi East Road, Hangzhou, Zhejiang, China.

MATERIAL SAFETY DATA SHEET

1. Chemical Product and company Identification

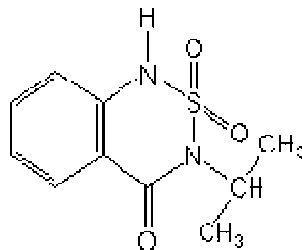
Product Name: Bentazone

Molecular Formula:

C₁₀H₁₂N₂O₃S Molecular Weight:

240.3

Structural Formula:



Chemical Name: 3-(1-methylethyl)-1*H*-2,1,3-benzothiadiazin-4(3*H*)-one
2,2-dioxide

Form: Liquid

Color: Yellow - Brown

Odor: N/A

CAS No.: 25057-89-0

Supplier: HANZHOU TIANLONG BIOTECHNOLOGY CO., LTD

Address: Room 1906, Fengqi Times Tower, No.338 Fengqi East Road, Hangzhou, China, 310020

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2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Bentazone	25057-89-0	95.0
Other ingredients		5.0

3. Hazards Identification

Irritating to eyes

May cause sensitization by skin contact

Harmful to aquatic organisms

May cause long-term adverse effects in the aquatic environment

Environmental hazards: Toxic to aquatic organisms

4. First Aid Measures

Inhalation: Remove victim from area of exposure - avoid becoming a casualty. Seek immediate medical advice.

Skin Contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

Eye Contact: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

Ingestion: Rinse mouth with water. If swallowed, do not induce vomiting. Give a glass of water. Seek immediate medical assistance.

Notes to physician: Treat symptomatically.

5. Fire-Fighting Measures

Specific Hazards: Non-combustible material.

Fire-fighting advice: Not combustible, however following evaporation of the water component of the material, the residual material can burn if ignited. On burning will emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

Suitable Extinguishing Media: Not combustible, however, if material is involved in a fire use: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. Accidental Release Measures

Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of sewers or waterways has occurred advise local emergency services.

7. Handling and Storage

Handling advice: Keep out of reach of children. Avoid skin and eye contact and breathing in vapor, mists and aerosols.

Storage advice: Store in the original container, tightly closed and away from foodstuffs. Keep containers closed when not in use - check regularly for leaks.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits: No value assigned for this specific material by the New Zealand Occupational Safety and Health Service.

Engineering Control Measures: Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

Personal Protective Equipment: Avoid contact with eyes and skin and breathing in spray mist. Wear gloves and eye protection when mixing or using. Use with adequate ventilation. Wash hands and exposed skin

thoroughly after use.

9. Physical and Chemical Properties

Appearance: White powder.

Water Solubility: 500 mg/L @ 20°C

Solubility in Other Solvents: acetone v.s.; ethanols, ethyl acetates, and benzene s.s.; cyclohexane s.s.

Melting Point: 137-139°C

Vapour Pressure: 0.046m Pa at 20°C.

Partition Coefficient: 0.4559

Adsorption Coefficient: 34 (parent acid)

10. Stability and Reactivity

Stability: Stable under normal conditions. Very resistant to hydrolysis in both acidic and alkaline media. Decomposed by sunlight.

Conditions to avoid: Oxidising agents. Avoid heat, flames, sparks and other sources of ignition.

Hazardous decomposition products: Carbon oxide, nitrogen, sulfur dioxide and sulfuric acid compounds.

Hazardous polymerization: Does not occur.

11. Toxicological Information

Acute Oral LD50 (rat): >1000 mg/kg

Acute Dermal LD50 (rat): >2500 mg/kg

Skin: Moderate irritant (rabbit).

Eyes: Moderate irritant (rabbit).

Skin sensitization: Not considered to be a skin sensitizer (guinea pig).

Reproductive effects: No data are currently available.

Teratogenic effects: Birth defects were observed in one rat study at a dose of 200 mg/kg/day, but the validity of these data are in question. No further data are currently available.

Mutagenic effects: No data are currently available.

Carcinogenic effects: Tumors have been seen in rats given 200 mg/kg/day of bentazon, but these results are questionable. No further data are currently available.

Organ toxicity: Animal studies have shown that the prostate gland may be affected.

12. Ecological Information

Effects on birds: Technical and formulated bentazon are both slightly toxic to birds. The oral LD50 of formulated bentazon (BAS 3510H) is 2000 mg/kg in mallard ducks and 720 mg/kg in Japanese quail.

Effects on aquatic organisms: Bentazon is practically nontoxic to both

coldwater and warmwater fish. Bentazon is slightly toxic to aquatic invertebrates. The LC50 (96-hour) for bentazon in rainbow trout is 510 mg/L for wettable powder. The LC50 (96-hour) for technical bentazon is 616 mg/L in bluegill sunfish, and in rainbow trout it is 190 mg/L. For formulated

bentazon (BAS 35- H), the LC50 (96-hour) in bluegills is 1060 mg/L, and in rainbow trout is 636 mg/L. The bioconcentration factor for bentazon predicted from its water solubility is 19, indicating low bioaccumulation potential.

Effects on other organisms: Applications of bentazon are not considered hazardous to most non-target organisms because of its generally low toxicity. Bentazon is not toxic to bees.

13. Disposal Considerations

Disposal must be at an approved waste facility for chemical wastes. Burn in a chemical incinerator equipped with an afterburner and scrubber.

The empty container must be triple rinsed prior to disposal. Consult the label for the actual method to be followed.

14. Transport Information

Class: 6.1

UN No.: 2757

Packing group: III

15. Regulatory Information

Safe phrase: Keep locked up and out of reach children.

Keep away from food, drink and animal feeding stuffs.

Do not breathe vapour/spray.

Avoid contact with skin and eyes.

Wear suitable protective clothing, gloves and eye/face protection.

Avoid release to the environment.

16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.