



Hangzhou Tianlong Biotechnology Co., Ltd.

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

MATERIAL SAFETY DATA SHEET

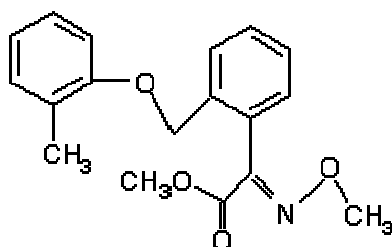
1. Chemical Product and company Identification

Product Name: Fenpropidin

Molecular Formula: C₁₉H₃₁N

Molecular Weight: 273.46

Molecular Structure:



Chemical Name: 1-[3-[4-(1,1-dimethylethyl)phenyl]-2-methylpropyl]piperidine

CAS No.: 67306-00-7

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 % |
|-------------------|------------|-----------|
| Fenpropidin | 67306-00-7 | 98.0 |
| Other ingredients | | 2.0 |

3. Hazards Summarizing

Potential health effects

Combustible liquid

May be harmful if swallowed, inhaled or absorbed through the skin

May cause eye irritation

May cause organ damage from repeated oral exposure at high doses

Very toxic to aquatic organisms

Harmful to terrestrial vertebrates

4. First Aid Measures

If inhaled: Keep patient calm, remove to fresh air. Assist in breathing if necessary. Consult a physician.

If on skin: Wash affected areas thoroughly with soap and water. Remove contaminated clothing. If irritation develops, seek medical attention.

If in eyes: Hold eyelids open to facilitate rinsing. Flush with copious amounts of water for at least 15 minutes. If symptoms persist, seek

medical advice.

If swallowed: Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

5. Fire-Fighting Measures

Type of hazard: This product is combustible.

Fire hazard properties: As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion.

Regulatory requirements: Combustible liquid. Stores with quantities of 500 litres or more require 2 fire extinguishers. Each fire extinguisher should be located within 30 metres of where the product is stored.

Extinguishing media and methods:

Small fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Large fires: Alcohol-resistant foam or water spray. Do not use a solid water stream as it may scatter and spread fire. Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

6. Accidental Release Measures

Personal precautions: Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and overalls.

Environmental Precautions: Washings must be prevented from entering surface water drains or waterways.

Procedure for spill:

- (1) Keep all bystanders away.
- (2) Wear goggles, half face-piece respirator with combined dust and vapour cartridge, full length clothing and PVC gloves.
- (3) Reposition any leaking containers so as to minimise further leakage.
- (4) Dam and absorb spill with an absorbent material (e.g. sand or soil).
- (5) Shovel the absorbed spill into drums.
- (6) Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.

Procedure for Disposal: Disposal of the absorbed material will depend upon the extent of the spill. Contaminated material must be disposed of in accordance with all local authority requirements.

7. Handling and Storage

Handling: Avoid contact with skin and eyes and inhalation of concentrate or spray mist. When using, do not eat, drink or smoke. Wash face and hands before eating, drinking or smoking.

Storage: Not special storage conditions required. Keep out of reach of

children. Keep in original containers and tightly closed. Keep away from food, drink and animal feeding stuffs. Store in a cool, dry, well ventilated place and protect from sunlight. Avoid temperatures below minus5 °C or above 35°C.

8. Exposure Controls/Personal Protection

Personal Protective Equipment:

To avoid eye and skin contact, wearing the following personal protective clothing and equipment is recommended:

Eyes: Safety goggles or face shield

Clothing: Cotton overalls buttoned to the neck and wrist and a washable hat.

Gloves: Elbow length PVC gloves.

Respiratory: Respiratory protection is not normally required. If airborne concentrations are likely to exceed the exposure standard above, an AS/NZS 1715/1716 approved respirator should be worn.

Other: After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, goggles or face shield and contaminated clothing.

9. Physical and Chemical Properties

Appearance: Pale yellow viscous liquid

Melting Point: -64.6°C.

Boiling Point: Decomposes before boiling.

Degradation point: 243°C.

Flashpoint: 156°C.

Vapour Pressure: 17.0mPa(25°C).

Stability: Soluble in water 530mg/L at 20°C, easy soluble in most organic solvents.

10. Stability and Reactivity

Stability: Stable under normal conditions.

Conditions to avoid: None known

Material to avoid: None known

Hazardous decomposition products: Combustion or thermal decomposition will evolve toxic and irritant vapours.

Hazardous polymerisation: Does not occur

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute toxicity:

Oral (rat) LD₅₀: 500–1500mg/kg

Dermal (rat) LD₅₀: >2000mg/kg

Skin irritation: No irritation (rabbit)

Eye irritation: Irritation (rabbit)

Sensitization: Not a sensitiser (guinea pigs)

Chronic toxicity:

The product has been extensively tested on laboratory mammals and in test-tube systems. The studies did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

12. Ecological Information

Acute toxicity to fish:

LC₅₀ (96h) = 2.57mg/l (rainbow trout)

LC₅₀ (96h) = 3.55mg/l (mirror carp)

Growth inhibition, algae:

ErC₅₀ (72h) = 0.0095mg/l (Scenedesmus capricornutum (green algae))

ErC₅₀ (72h) = 0.0004mg/l (Scenedesmus subspicatus (green algae))

Toxicity to aquatic invertebrates:

EC₅₀ (48h) = 0.54mg/l (daphnia magna (water flea))

Toxicity to birds:

LD₅₀ (48h) = 569mg/kg (northern bobwhite quail)

LD₅₀ (48h) = 1899mg/kg (mallard duck)

Toxicity to soil dwelling organisms:

LC₅₀ (14days) ≥ 1200mg/kg soil (earthworms)

Toxicity to bees:

LC₅₀ (48h, oral) = 99.9ug/bee

LC₅₀ (48h, contact) = 55.3ug/bee

Environmental fate: The product does not bioaccumulate, is not persistent in soil or water. Fenpropidin is immobile in soil and will not leach. DT50 = 59 days (loam) to 95 days (sandy loam).

13. Disposal Considerations

Disposal of the absorbed material will depend upon the extent of the spill. Contaminated material must be disposed of in accordance with all local authority requirements.

It is suggested:

For quantities up to 50 litres of product bury in a secure approved landfill site.

For quantities greater than 50 litres seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established.

14. Transport Information

Class: 9

UN No.: 3082

Packing group: III

15. Regulatory Information

Risk phrase: Harmful by inhalation, in contact with skin and if swallowed.
Irritating to eyes, respiratory system and skin.
Toxic to aquatic organisms.

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.