



MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Information

Product Name : FENOBUARB (BPMC) TECHNICAL
Chemical Name : (RS)-2-sec-butylphenyl methylcarbamate
Chemical Formula : $C_{12}H_{17}NO_2$
Mol. Wt. : 207.3
Use : Insecticide
Company : HPM Chemicals & Fertilizers Ltd.
Address : 209-219, Anupam Bhawan, Azadpur Commercial Complex, Azadpur, Delhi- 110033
Telephone : (011)-45071800, 899
Fax : (011)- 27681800
Website : www.hpmindia.com
e-mail : info@hpmindia.com

2. Composition / Information on Ingredients

Chemical Name	CAS No	Concentration [%]
Fenobucarb a.i.	3766-81-2	95.00 % Min.
Inert Ingredients	-----	Q.S. to make 100%

3. Hazards Identification

EMERGENCY OVERVIEW

Risk

- Harmful if swallowed.
- Toxic in contact with skin.
- Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

Potential Health Effects:

EYE: Mildly irritating to the eye

SKIN: Prolonged or repeated skin contact may cause rashes, numbing, burning, or tingling effects. Not a sensitizer.

INHALATION: May cause irritation to the nasal region and respiratory tract.

INGESTION: Harmful if swallowed.

Potential Physical Hazards: Can decompose at high temperatures forming toxic gases.

4. First Aid Measures

Skin: Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.

Eyes: First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

Inhalation: Move affected person to fresh air and keep at rest until recovered. If not breathing, give artificial respiration and get to a doctor.

Ingestion: Do not induce vomiting if the person is conscious. Give glass of water. Get to a doctor.

Notes to physician: Atropine Sulphate 2-4 mg intravenously at 5-10 min intervals for hours together.



MATERIAL SAFETY DATA SHEET

5. Fire Fighting Measures

FLASH POINT: 142°C (Closed Cup)

Extinguishing media

To be used: Water, carbon dioxide, dry chemical and foam.

Don't use: Not applicable

Particular risk: None

Measures of personal protection: Safety glasses or goggles, rubber gloves, shoes plus socks, long-sleeved shirt, and long pants.

Environmental cautions

EX: Prevent the contamination of the floor and the beds of water.

6. Accidental Release Measures

Personal cautions: Safety glasses or goggles, rubber gloves, shoes plus socks, long-sleeved shirt, and long pants.

Cleaning methods

EX: The empty container may be decontaminated by rinsing two or three times with water and detergent and scrubbing the sides.

Environmental cautions

EX: prevent the contamination of the floor and beds of water.

7. Handling and Storage

Handling: Do not apply to humans, their clothing, or bedding. Do not contaminate food or use on household tanks.

Storage: Store at normal temperatures, away from children, domestic animals, food and feed products, seed and fertilizer. Do not contaminate other stored products or the storage area by handling or storage of this product. Keep in a well-ventilated room.

8. Exposure Controls/Personal Protection

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection: Approved respirator

Protective gloves: Rubber gloves

Eye protection: Safety goggles or face shield.

Industrial hygiene: Adequate ventilation.

9. Physical and Chemical Properties

Color: Light Yellow

Physical State: Solid or Liquid

Odor: Aromatic Odour

Melting Point: 31.4 °C

Boiling Point: 112-113 °C

Relative Density: 1.035 g/ml

Vapour Pressure: 9.9 mPa at 20 °C

Solubility: In Water: 420 mg/l (20 °C), 610mg/l (30 °C)

In Organic Solvents: 930 mg/l in Acetone, 880 mg/l in Toluene, 890 mg/l in Dichloromethane, 890 mg/l in Ethyl Acetate etc.



MATERIAL SAFETY DATA SHEET

10. Stability and Reactivity

Conditions to avoid: Flame, fire and high temperature.
Products to avoid: Incompatible with alkaline and strong acid;
Thermal decomposition: N/A;
Hazardous decomposition products: Nitride, chloride, carbon dioxide and so on.
Hazardous reaction: Not applicable

11. Toxicological Information (Technical)

TOXICOLOGICAL INFORMATION:

Acute Oral Toxicity: Rat: LD₅₀: 524 mg/kg
Acute Dermal Toxicity: Rabbit: LD₅₀: >2000mg/kg
Acute Inhalation Toxicity: Rat: LC₅₀: >2500 mg/m³ of air
Skin Irritation: Rabbit: Slight irritation
Skin sensitization: Guinea pig: Not a skin sensitizer.
Eye Irritation: Rabbit: Slight irritation

12. Ecological Information

ENVIRONMENTAL SUMMARY:

Aquatic organisms:

LC₅₀ (96 h) for *Crap* 25.4 mg/l. *Daphnia* **LC₅₀ (48h)** 0.0103 mg/kg

Bird:

Acute oral LD₅₀ for *mallard duck* 224;

Dietary LC₅₀ (5 d) for *bobwhite quail* 5417, and *mallard ducks* >5500 mg/kg.

Other Animals (Non-target species)

Bee: Fenobucarb is moderately toxic to bees.

Earth worms: **LC₅₀** for *Eisenia foetida* 28.1 mg/kg soil.

13. Disposal Considerations

Material which cannot be used at the site should be disposed of in an approved waste disposal facility following all applicable Federal, State and Local regulations. If burned, stay out of smoke. Do not contaminate water supplies by disposal of wastes or containers.

14. Transport Information

ADR/RID

UN-Number: 3077 **Class:** 9 **Packing group:** III

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Fenobucarb)

IMDG

UN-Number: 3077 **Class:** 9 **Packing group:** III

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Fenobucarb)

Marine pollutant: No

IATA

UN-Number: 3077 **Class:** 9 **Packing group:** III



MATERIAL SAFETY DATA SHEET

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Fenobucarb)

15. Regulatory Information

Symbol: T
R phrases: R23/25-48
S phrases: S2/7/9/13/36/39

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 resented 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 produces formulations containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS. Accordingly, no guarantee or warrantee expressed or implied is made by HPM Chemicals & Fertilizers Ltd., as to the results to be obtained based upon the user's use of the information, nor does HPM Chemicals & Fertilizers Ltd., assume any liability arising out of user's use of the information.

Prepared by: HPM Chemicals & Fertilizers Ltd., Safety Division
