

Prometryn-MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

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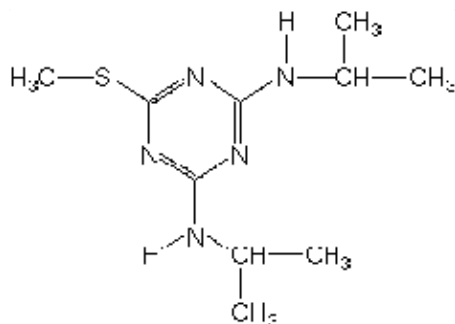
1. Chemical Product Identification

Product Name: Prometryn

Molecular Formula: C₁₀H₁₉N₅S

Molecular Weight: 241.37

Structural Formula:



Chemical Name: 2,4-bis(isopropylamino)-6-(methylthio)-s-triazine

Form: Granules

Color: Light brown to brown

Odor: Not determined

CAS No.: 7287-19-6

2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Prometryn	7287-19-6	90.0
Other ingredients		10.0

3. Hazards Identification

Causes mild eye and skin irritation. Can decompose at high temperatures forming toxic gases.

4. First Aid Measures

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact:

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation:

If inhaled: Move person to fresh air. If person is not breathing, call an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

5. Fire-Fighting Measures

Unusual Fire, Explosion and Reactivity Hazards: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire: Use dry chemical, foam or CO₂ extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. Accidental Release Measures

In Case of Spill or Leak:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in Protective Equipment Section. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent. Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. Handling And Storage

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

8. Exposure Controls/Personal Protection

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact: Where eye contact is likely, use chemical splash goggles.

Skin Contact: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

9. Physical and Chemical Properties

Melting Point: 118-120°C

Water Solubility: 48 mg/L @ 20°C

Solubility in Other Solvents: s. in organic solvents, including ethanol, methanol, acetone, dichloromethane, and toluene

Vapor Pressure: 0.169 mPa @ 25°C

Relative density: 1.15

Partition Coefficient: 3.3404

Adsorption Coefficient: 400

10. Stability and Reactivity

Stability: Stable under normal use and storage conditions.

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Ingestion: Oral (LD50 Rat) > 2,000 mg/kg body weight

Dermal: Dermal (LD50 Rat) > 3,100 mg/kg body weight

Inhalation: Inhalation (LC50 Rat) > 5.14 mg/l air - 4 hours

Eye Contact: Mildly Irritating (Rabbit)

Skin Contact: Slightly Irritating (Rabbit)

Skin Sensitization: Not a Sensitizer (Guinea Pig)

Reproductive effects: In a three-generation study, no reproductive effects were seen in rats fed up to 5 mg/kg/day. In another study, reduced offspring body weights, but no other reproductive effects, were seen in rats at doses of up to 75 mg/kg/day. From the data, it appears that prometryn is unlikely to cause reproductive effects.

Teratogenic effects: No teratogenic effects were seen in the offspring of rats fed 250 mg/kg/day, the highest dose tested. In another study, no teratogenic effects were seen in rats at doses of 50 mg/kg/day. No teratogenic or developmental effects were seen in rabbits at doses of 72 mg/kg/day. Prometryn does not appear to cause birth defects.

Mutagenic effects: Eleven different tests for mutagenicity involving hamsters, bacteria, or mammalian cell cultures have all produced negative results, indicating that prometryn is not a mutagen.

Carcinogenic effects: Prometryn was not carcinogenic in a 2-year rat feeding study at doses of up to 62.5 mg/kg/day. Carcinogenic effects were not seen in mice at doses of up to 300 mg/kg/day over 18 months. The available data suggest that prometryn is not carcinogenic.

Organ toxicity: Target organs identified through animal studies include the liver, kidneys, and bone marrow.

12. Ecological And Ecotoxicological Information

Effects on birds: Prometryn is practically nontoxic to birds; the acute oral LD50 values in bobwhite quail and mallard ducks are greater than 2150 mg/kg and greater than 4640 mg/kg, respectively. The reported 5- to 7-day dietary LC50 values are greater than 10,000 ppm for these same species.

Effects on aquatic organisms: Prometryn is moderately toxic to fish, with reported 96-hour LC50 values of 2.5 to 2.9 mg/L in rainbow trout, 10.0 mg/L in bluegill sunfish, 3.5 mg/L in goldfish, and 8 mg/L in carp. It is highly toxic to guppies. It is slightly toxic to freshwater invertebrates. A 19% decrease in shell growth was observed in oysters exposed to 1.0 mg/L of the herbicide for 48 hours. Pink shrimp were unaffected by exposure to 1.0 mg/L of the herbicide for 48-hours. However, the compound has a 48-hour LC50 in the invertebrate *Daphnia* of 18.9 mg/L. The observed concentration of prometryn in bluegill and in rainbow trout is 9 to 10 times the ambient water concentration, indicating a low potential for bioaccumulation.

Effects on other organisms: Prometryn is nontoxic to bees and earthworms, with a reported contact LD50 of greater than 99 ug/bee, and a 48-hour LC50 of 153 mg/kg in earthworms.

13. Disposal Considerations

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

14. Transport Information

Not applicable.

15. Regulatory Information

Not applicable.

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.