Pymetrozine -MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

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1. Chemical Product Identification

Product Name: Pymetrozine

Molecular Formula: C₁₀H₁₁N₅O

Molecular Weight: 217.2

Structural Formula:



Chemical Name:

4,5-2H-6-methyl-4(3-pyridine-methano-amino)-1,2,4-triadiazin-3-3(2H)-one

Form: powder

Color: Slight yellow or white

Odor: Slight

CAS No.: 123312-89-0

2. Composition / Information on Ingredients

| Composition | CAS No. | Content % |
|-------------------|-------------|-----------|
| Pymetrozine | 123312-89-0 | 90.0 |
| Other ingredients | | 10.0 |

3. Hazards Identification

Hazardous Decomposition Products: Can decompose at high temperatures forming toxic gases.

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

4. First Aid Measures

Eyes: Immediately rinse eyes with a large amount of running water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Hold eyelids apart to rinse the entire surface of the eyes and lids. Do not apply any medicating agents except on the advice of a physician.

Skin: Remove contaminated clothing. Wash skin immediately with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Obtain medical attention if irritation persists. Decontaminate clothing prior to re-use.

Inhalation: Move victim from the contaminated area to fresh air. If the individual is not breathing, call an ambulance and begin artificial respiration.

Ingestion: If victim is fully conscious, give a large quantity of water to drink. Do not induce vomiting unless under the direction of a physician. Never give anything by mouth to an unconscious or convulsing person.

5. Fire-Fighting Measures

Extinguishing media: Use dry chemical, foam, or CO_2 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

Procedures for dealing with release or spill: Control the spill at its source. Contain the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Moisten the spilled material with a little water. For small spills, sweep up as much material as possible, keeping dust to a minimum and place in a marked chemical container. Wash the spill area with water containing a strong detergent (e.g. commercial products such as Tide, Joy Spic and Span), absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal container and label appropriately for disposal. Flush the spill area with water to remove any residue. Do not allow wash water to

contaminate water supplies. Heavily contaminated soil layers have to be dug out down to clean soil.

7. Handling and Storage

Handling practices: Keep out of reach of children.

Do not eat, drink, use tobacco or apply cosmetics in areas where there is a potential for exposure to the material. Always wash thoroughly after handling. Also see section 8 below.

Appropriate storage practices/requirements: Store the material in a well-ventilated, secure area out of the reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area.

8. Exposure Controls/Personal Protection

Inhalation: Work in a well -ventilated area. A air-purifying respirator with a filter and an organic vapor cartridge may be permissible under circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a pressure demand atmosphere-supplying respirator if there is any potential for uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

Eyes: To avoid eye contact, wear safety glasses with side shields or chemical goggles.

Skin: To avoid skin contact, wear rubber gloves, rubber boots, long-sleeved shirt, long pants and a head covering.

Ingestion: Do not eat, drink, use tobacco or apply cosmetics in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

9. Physical and Chemical Properties

PH: 7-11 (1% aq. Soln) Vapor pressure and reference temperature: 7.3 x 10-16 mmHg @ 20°C

Boiling point: Not applicable

Melting point: 234°C

Specific gravity: 0.40 g/cm3 @ 25°C

Evaporation Rate: Not applicable

Water/oil partition coefficient: Log Pow = -0.19 at 25°C

10. Stability and Reactivity

Chemical stability: Stable under normal use and storage conditions.

Conditions to avoid: None known

Incompatibility with other materials: None known

Hazardous decomposition products: Can decompose at high temperatures forming toxic gases.

Hazardous polymerisation: Will not occur

11. Toxicological Information

LD50 (species and route) ORAL: LD50 (Rat): Practically Non-Toxic > 5,000 mg/kg body weight DERMAL: LD50 (Rat); Slightly Toxic > 2,000 mg/kg body weight LC50 (species) Inhalation: LC50 (Rat): Slightly Toxic > 3.09 mg/L air - 4 hours

12. Ecological and Ecotoxicological Information

Bees LC50/EC50 > 117ug/bee Invertebrates (water flea) LC50/EC50 87 ppm Rainbow Trout LC50/EC50 >128 ppm

Bluegill Sunfish LC50/EC50 >134 ppm

Bobwhite Quail (8-day dietary) LC50/EC50 >5,200 ppm Mallard Duck (8-day dietary) LC50/EC50 > 5,200 ppm

13. Disposal Considerations

Waste disposal information: Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, and provincial 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.