

河北捷润科技有限公司

Hebei JRain Technology Co., Ltd.

Date: Nov 13th, 2023

Material Safety Data Sheet

Product Name : Flumetsulam 98% TC

1. Product Identification

Product Name : Flumetsulam 98% TC

CAS No.: 98967-40-9

Chemical group: Triazole and pyridine sulfonamide classes

Formulation: Technical grade

Manufacturer: HEBEI JRAIN TECHNOLOGY CO.,LTD.

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2. Composition/Information on Ingredients

Ingredient		CAS No.	Percent w/w	Hazardous
Active ingredient	Flumetsulam	98967-40-9	98%	Yes
Inert ingredient	Impurity	N/A	1.5%	N/A
	Water	7732-18-5	0.5%	No

3. Hazards Identification

Emergency Overview

CAUTION! May causes eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist.

Potential Health Effects

Based on animal data, eye contact with Flumetsulam may cause eye irritation with tearing, pain or blurred vision.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

4. First Aid Measures

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

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doctor for treatment advice.

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 the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. Fire Fighting Measures

Flammable Properties: Not a fire or explosion hazard. Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air.

Extinguishing Media:

Water Spray, Foam, Dry Chemical, CO₂.

Fire Fighting Instructions:

Evacuate personnel to a safe area. Wear self-contained breathing apparatus. Wear full protective equipment. Use water spray. Runoff from fire control may be a pollution hazard. If area is exposed to fire and conditions permit, let fire burn itself out. Burning chemicals may produce by-products more toxic than the original material. If product is on fire, wear self-contained breathing apparatus and full protective equipment. Use water spray. Control runoff.

6. Accidental Release Measures

Safeguards (Personnel)

NOTE: Review Fire fighting measures and handling (personnel) sections before proceeding with clean-up. Use appropriate Personal protective equipment during clean-up.

Emergency Response: Chemical resistant coveralls, waterproof gloves, waterproof boots and face/eye protection. If dusting occurs, use NIOSH approved respirator protection.

Initial Containment: Dike spill. Prevent material from entering sewers, waterways, or low areas. Follow applicable local laws/regulations.

Spill Clean Up: Shovel or sweep up.

Accidental Release Measures

If spill area is on ground near valuable plants or trees remove top 2 inches of soil after initial cleanup.

7. Handling and Storage

Handling (Personnel): Avoid breathing vapors or mist. Avoid breathing dust. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling. Wash clothing after use. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.

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Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Handling (Physical Aspects): Keep away from heat, sparks and flames.

Storage: Store below 140°C (284 F). Store in a well ventilated place. Keep container tightly closed. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

8. Exposure Controls/Personal Protection

Engineering Controls: Use only with adequate ventilation.

Personal Protective Equipment: Always follow the label instructions when handling this product.

Applicators and other handlers must wear: Long-sleeved shirt and long pants. Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. PPE required for early entry to treated areas that is that involves contact with anything that has been treated, such as plants, soil, or water.

9. Physical and Chemical Properties

Physical State:	Powder
Color:	Off-white to White
Odor:	Odourless
Melting Point:	251–253 °C
Solubility in Water: (25°C)	49mg/L(pH2.5), solubility increases with pH, 5600mg/L(pH7)
Solubility in organic solvent (mg/L)	In acetone <16, methanol <40, Insoluble in hexane and xylene
Vapor pressure:	3.7×10^{-7} mPa (25°C)
K_{ow}logP (25°C)	-0.68
Density (21°C)	1.77

10. Stability and Reactivity

Chemical Stability: Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials: None reasonably foreseeable.

Decomposition: will not occur.

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Polymerization: will not occur.

11. Toxicological Information

Animal Data

Flumetsulam:

Oral LD₅₀: > 5000 mg/kg in rats (Low toxicity)

Skin LD₅₀: > 2000 mg/kg in rabbits (Low toxicity) Non-sensitising to skin (guinea pigs).

Eyes Slightly irritating to eyes (rabbits).

Inhalation LC₅₀, (4 h): > 1.2 mg/L in rats (Very low toxicity)

NOEL: for mice >1000, female rats 500, male rats 1000, dogs 1000 mg/kg b.w.

ADI: (EPA) 1 mg/kg b.w. [1993].

Application of a single dose of Flumetsulam to the skin of rabbits resulted in body weight loss. Repeated applications caused skin irritation but no other changes were observed. Ingestion of a single dose of Flumetsulam by animals caused body weight loss and other nonspecific effects. Repeated dosing produced decreased body weight gain and decreased liver weights when compared to the control group. Long term administration caused body weight loss.

Single exposures of animals to Flumetsulam by inhalation caused body weight loss and other nonspecific effects. Animal testing indicates that Flumetsulam does not have carcinogenic, developmental, or reproductive effects. There is a report indicating that Flumetsulam produced genetic damage in a mammalian cell culture test; however, other tests with Flumetsulam in bacterial and mammalian cell cultures and in animals did not produce genetic damage. The weight of evidence suggests that Flumetsulam does not cause genetic damage.

12. Ecological Information

Aquatic toxicity: (Flumetsulam)

LC₅₀ (96 h) for silverside minnows >379 mg/l. Non-toxic to fathead minnows and bluegill sunfish.

Avian toxicity: (Flumetsulam)

LD₅₀ bobwhite quail >2250 mg/L

Dietary LC₅₀ (8 d) for bobwhite quail and mallard ducks >5620 mg/l.

Bee: (Flumetsulam)

LC₅₀ >100 µg/bee. NOEL 36 µg/bee.

Earthworm: (Flumetsulam)

LD₅₀ (14d) : > 1320mg/kg soil

Daphnia Non-toxic.

Algae EC₅₀ (5 d) for green algae (*Selenastrum capricornutum*) 4.9, blue-green algae (*Anabaena flos-aquae*) 167 µg/l.

13. Disposal Considerations

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Waste Disposal : Do not contaminate water supply, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Treatment, storage, transportation, and disposal must be in accordance with applicable Local regulations.

Environmental Hazards: Do not apply directly to water, or areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Container Disposal

For Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

For Fiber Sacks: Completely empty fiber sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of sack in a sanitary landfill or by incineration if allowed by State and local authorities.

For Fiber Drums with Liners: Completely empty liners by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of sack in a sanitary landfill or by incineration if allowed by State and local authorities. If the drum is contaminated and cannot be reused, dispose of in the same manner.

For Bags Containing Water Soluble Packets: Do not reuse the outer box or the resealable plastic bag. When all water-soluble packets are used, the outer packaging should be clean and may be disposed of in a sanitary landfill or by incineration, or if allowed by State and local authorities, open burning. If burned, stay out of smoke. If the resealable plastic bag contacts the formulated product in any way, the bag must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

For Metal Containers (non aerosol): Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by the State and local authorities.

For Paper and Plastic Bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

14. Transport Information

Transport Classification – Sea (IMDG):

UN No.: 3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

Class: 9 SOLID, N.O.S. (CONTAINS Flumetsulam)

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Packing Group: III

15. Regulatory information:

Not Available

16. Other Information

NFPA, NPCA-HMIS

NFPA Rating

Health : 1

Flammability : 1

Reactivity : 0

NPCA-HMIS Rating

Health : 1

Flammability : 1

Reactivity : 0

Personal Protection rating to be supplied by user depending on use conditions.

Disclaimer:

***** The
manufacturer provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. The manufacturer makes no representations or express or implied, including without limitation any warranties of merchantability fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, the manufacturer will not be responsible for damages resulting from use of or reliance upon this information.

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