Hebei JRain Technology Co., Ltd.

Date: Jun.9th, 2025

Material Safety Data Sheet

Product Name: Carfentrazone-ethyl 95% TC

1. Product Identification

Product Name: Carfentrazone-ethyl 95% TC

CAS No.: 128639-02-1

Chemical group: Triazole moiety ketone

Formulation: Technical Material

Manufacturer: HEBEI JRAIN TECHNOLOGY CO.,LTD.

Address:No. 66 XIANGTAI ROAD, YUHUA DISTRICT, SHIJIAZHUANG CITY,

HEBEI PROVINCE, CHINA

Tel: 86-311-80680379 Fax: 86-311-80680380

Email: pan@sanlin-industry.com

2. Composition/Information on Ingredients

Ingredient		CAS No.	Percent w/w
Active ingredient	Carfentrazone	128639-02- 1	95%
Inert ingredient	Other ingredients, including water	N/A	Up to 100%

3. Hazards Identification

Emergency Overview

CAUTION! Based on animal data, Carfentrazone-ethyl may cause eyes irritation with tearing, pain or blurred vision. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist.

Harmful if inhaled.

Toxic if swallowed.

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

Get medical assistance for all cases of overexposure.

Skin contact: Immediately wash skin with soap and plenty of water. Remove

Hebei JRain Technology Co., Ltd.

contaminated clothing. Get medical attention if symptoms occur.

Wash clothing before reuse.

Eye contact: Immediately flush with plenty of water. After initial flushing, remove and contact lenses and continue flushing for at least 15 minutes.

Assure adequate flushing by separating the eyelids with fingers.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: Call a physician or poison control center immediately. If conscious, give water freely.

5. Fire Fighting Measures

Flash Point: N/A

Flammable Limits LEL (%): N/A Flammable Limits UEL (%): N/A Autoignition Temperature: N/A

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

Use alcohol foam, carbon dioxide, dry chemical, or water spray when fighting fires involving this material.

Fire Fighting Instructions:

As in any fire, wear self-contained breathing apparatus pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures

Spill Response:

Wear suitable protective equipment listed under Exposure Controls / Personal Protection. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate its source, if this can be done without risk. Dispose as hazardous waste.

Comply with Federal, State and local regulations

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.

Hebei JRain Technology Co., Ltd.

7. Handling and Storage

Store in a tightly closed container.

Store in a cool area away from ignition sources and oxidizers.

Avoid inhalation.

Use with adequate ventilation.

Do not get in eyes, on skin or clothing.

Avoid prolonged or repeated exposure.

This product should only by used by persons trained in the safe handling of hazardous chemicals

8. Exposure Controls/Personal Protection

Engineering Controls and Personal Protection Equipment (PPE): Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety equipment supplier). Engineering and/or administrative controls should be implemented to reduce exposure.

Material should be handled or transferred in an approved fume hood or with adequate ventilation.

Protective gloves must be worn to prevent skin contact.

(Butyl, viton or equivalent)

Safety glasses with side shields must be worn at all times.

General Hygiene Considerations:

Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

9. Physical and Chemical Properties

Physical State: Liquid

Color: Amber

Odor: Non

Solubility in Water: 12 μg/L(20°C);22(25°C);23(30°C)

Solubility in other solvent, Toluene: 0.9; hexane: 0.03;

With acetone, ethanol, ethyl acetate and

(mg/L, 20°C) dichloromethane miscibility

Specific Gravity: 1.46 g/cm3 @ 20°C

Vapor Pressure: 1.6×10⁻⁵ Pa @ 25 °C

Hebei JRain Technology Co., Ltd.

Melting Point: -22.1 °C

Boiling point 350-355°C

Molecular Weight: 412.2

 $K_{ow}logP$ 3.36

10. Stability and Reactivity

Stability: Stable at pH=5

Conditions To Avoid: illumination

Materials To Avoid: Oxidizers

Acids

Bases

Various heavy metal oxides and salts

Hazardous Decomposition: Oxides of carbon and nitrogen

Hazardous Polymerization: Will not occur

11. Toxicological Information

Animal Data

Oral LD₅₀: 5143mg/kg in rats (mid toxicity)

Skin LD₅₀: >4000 mg/kg in rabbits (No stimulus to rabbit skin)

Inhalation LC₅₀, (4 h): 5mg/L in rats (light toxicity)

Slightly irritating to the rabbit eyes.

The result of Ames test is negative.

NOEL: Rats(2a)=3mg/kg·d.

ADI=0.03mg/kg

12. Ecological Information

LD₅₀: Mallard Duck & Bobwhite Quail >1000 mg/kg

LC₅₀: Mallard Duck & Bobwhite Quail >5000 mg/kg

 $LC_{50}(96h) = 1.6-4.3mg/L$ to different kinds of fish.

LD₅₀: $35\mu g/Bee$ (Oral); $>200\mu g/Bee$ (touch)

 LD_{50} : >820mg/kg soil

13. Disposal Considerations

Hebei JRain Technology Co., Ltd.

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

UN No.: 3082

Class: 9

Packing Group: III

Hebei JRain Technology Co., Ltd.

15. Regulatory information:

In addition to Federal and state regulations, local regulations may apply. Check with your local regulatory authorities.

WARNING: This product contains chemical(s) known to the state of California to cause cancer.

This product is subject to SARA section 313 reporting requirements.

The CAS number of this product is NOT listed on the TSCA Inventory. For laboratory, research and development use only. Not for manufacturing or commercial purposes.

16. Other Information

This document has been designed to meet the requirements of OSHA, ANSI and CHIPs regulations.

The statements contained herein are offered for informational purposes only and are based on technical data that we believe to be accurate. It is

intended for use only by persons having the necessary technical skill and at their own discretion and risk. Since conditions and manner of use are

Disclaimer:

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 warrantities 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.

HEBEI JRAIN TECHNOLOGY CO.,LTD.