



SHANGHAI BOSMAN INDUSTRIAL CO., LTD.

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MATERIAL SAFETY DATA SHEET OF

D-PHENOTHRIN 94% TC

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product name: d-PHENOTHRIN 94% TC

Recommended use: Insecticide

Supplier: Shanghai Bosman Industrial Co., Ltd

Street address: No. 1611, North Sichuan Road, Hongkou, Shanghai R.P. China

Tel: + 86 21 63065878

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Formulation: Technical grade (TC)

Other ingredients determined not to be hazardous

INGREDIENT	CAS NO	PROPORTION(%, w/w)
d-PHENOTHRIN	188023-86-1	≥ 94
Other ingredients	--	Up to 100%

3. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

Label elements

Pictogram



Signal word Warning

Hazard statements H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements P273 Avoid release to the environment.

P391 Collect spillage.

P501 Dispose of contents/ container in accordance with national regulations.

4. FIRST AID MEASURES

Inhalation: Move affected person from contaminated area to fresh air. If the affected person is not breathing, provide artificial respiration. In the case of laboured breathing, provide oxygen and obtain medical aid.

Skin contact: Remove contaminated clothing and wash affected areas with plenty of water and soap. Contact a physician if irritation occurs.

Eye contact: Remove contact lenses, if present. Flush eyes with plenty of water for 15 minutes. Try to open the eyelids. It is advisable to contact a physician if irritation persists.

Ingestion: Contact a poison control centre or a physician immediately. Administer the injured person 1 or 2 glasses of water, if conscious. Vomiting may be induced, keeping the injured's head bent down, in order to prevent vomit inhalation through the respiratory apparatus. Do not administer anything to unconscious people.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Foam, CO₂, chemical powders, water mist.

Unsuitable extinguishing media: Jets of water.

Special exposure hazards in a fire: As for all organic materials, combustion may lead to formation of hazardous oxides of carbon and other toxic fumes.

Special protective equipment for fire-fighters: Wear a self-contained respiratory apparatus; wear protective clothing in order to avoid contact with the skin and the eye.

Other instructions: Cool fire-exposed containers with water mist and avoid environmental

contamination with extinguishing water.

6. ACCIDENT RELEASE MEASURES

Personal precautions: Wear suitable clothing as reported in Heading 8.

Environmental precautions: Avoid soil and water contamination. In the case of environmental contamination, inform the authorities.

Methods for cleaning up: Soak up with sand or other absorbent material; collect thoroughly into suitable containers.

Wash the contaminated area with a soapy solution; collect waste waters for treatment

7. HANDLING AND STORAGE

Handling: Handle only when suitable ventilation is available. Avoid contact with eyes, skin and clothing. Wash hands and exposed skin after work. Do not eat, drink or smoke during use.

Storage

Requirements of storage rooms:

The product is not affected by the variation of temperature normally reached in a warehouse owing to seasonality. However, it should be stored in a closed, dry and wellventilated area.

Electrical equipment in warehouses or formulation departments should conform to the local norms for combustible products.

Storage conditions: Keep away from food, drinks or animal feedingstuffs. Protect from light, heat and naked flames. The substance is stable under normal atmospheric conditions. Do not stack palletised drums in more than 3 vertical layers.

Packaging material to be avoided: Unlined iron and other metals (copper, brass, bronze).

Recommended packaging material: Polyethylene (in particular F-HDPE, HDPE or co-extruded PE); dark glass; coated steel (epoxy-phenolic or polyvinyl-fluoride resins).

Only for short period storages: other plastic materials, tinplate, lined steel or aluminium.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment**Eye/face protection**

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid

Color : Yellow to yellow-brown transparent

Odor : slight aromatic odour.

pH : 5-7

Corrosive: Non corrosive

Oxidisation: Not an oxidiser

10. STABILITY AND REACTIVITY

Conditions to avoid:

The substance is not sensitive to shock, moisture, pressure or temperature. Sources of ignition should however be avoided. Do not expose to temperatures higher than 60 °C in order to avoid the degradation of lined containers. Do not expose to light for avoiding loss of the substance concentration.

Materials to avoid:

The substance degrades when in contact with strong alkalis and acids, without generating hazardous products.

Hazardous decomposition products:

Combustion is the only reaction that may lead to hazardous decomposition products (i.e. oxides of carbon and other toxic fumes).

11. TOXICOLOGICAL

Acute Oral Toxicity: LD50 (rat): 5000 mg/kg bw (cut off value)

Acute Dermal Toxicity: LD50 (rat): > 2000 mg/kg bw

Acute Inhalatory Toxicity: LC50 (rat): > 5.3 mg/L air (4 h)

Corrosion: Non-corrosive.

Eye and Dermal Irritation: Non-irritating.

Skin sensitisation: Non-sensitising.

Long-term toxicity: Non-teratogenic, non-mutagenic, non-carcinogenic, non-toxic to reproduction.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Highly toxic to fish: LC50 Bluegill sunfish (96 hour) > 16 µg/L, LC50 Rainbow trout (96 hour) = 2.7 µg/L

Highly toxic to aquatic invertebrates: EC50 Daphnia magna (48 hour) = 4.3 µg/L

Low toxicity to birds: Acute Oral LD50 Bobwhite quail > 2500 mg/kg

Toxic to bees.

ENVIRONMENTAL FATE

Studies have shown that d-Phenothrin is readily absorbed into soil, is photodegradable but not readily biodegradable and has bioaccumulation potential.

13. DISPOSAL CONSIDERATION

Product: This material must be disposed of as a hazardous waste. Disposal should be in accordance with local, national or state regulations.

Contaminated Packaging: Break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

UN number : 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (d-Phenothrin)

Class : 9

Packing group : III

15. REGULATORY INFORMATION

Follow all local, international decree, regulation and laws.

16. OTHER INFORMATION

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.

-- END OF MSDS --