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MATERIAL SAFETY DATA SHEET OF

TEBUTHIURON 46% SC

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

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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Product name: Tebuthiuron 46% SC

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Acute toxicity (oral), Category 4 H302

Acute toxicity (dermal), Category 5 H313

Acute toxicity (inhalation:vapour) Category 3 H331

Hazardous to the aquatic environment – Acute Hazard, Category 1 H400

Hazardous to the aquatic environment – Chronic Hazard, Category 1 H410

Full text of H-statements: see section 16

2.2. Label elements

Labelling according to the United Nations GHS

Hazard pictograms (GHS) :

Signal word (GHS) : Danger

Hazard statements (GHS) :

H302 - Harmful if swallowed.

H313 - May be harmful in contact with skin

H331 - Toxic if inhaled.

H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (GHS) :

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

P261 - Avoid breathing vapours, spray.

P264 - Wash hands, forearms and face thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P301+P312 - IF SWALLOWED: Call a doctor if you feel unwell.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 - Call a doctor if you feel unwell.

P330 - Rinse mouth.

P391 - Collect spillage.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents and container to an approved waste disposal plant.

2.3. Other hazards

Adverse physico-chemical, human health and environmental effects: Toxic if inhaled, Harmful if swallowed, Harmful in contact with skin,Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formulation Type: Suspension concentrate (SC)

CHEMICAL NAME	CAS NO.	PERCENT
Tebuthiuron	34014-18-1	46% min
others	not available	Balance

4. FIRST AID MEASURES

Inhalation Move the victim to fresh air and keep at rest. If symptoms persist, call a physician.

Skin contact Take off contaminated clothing and shoes immediately. Wash off with soap and water. If symptoms persist, call a physician.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician or poison control center immediately.

Ingestion Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. Keep patient warm and at rest. Obtain medical attention. Never give anything by mouth to an unconscious person.

Notes to physician: Treat symptomatically. There is no specific antidote.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Water spray as a fog can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Do not use direct jet of water. Contain water used for fire-fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released

Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. Personal protection (Emergency response) : Wear respiratory protection,Wear protective gloves,Wear protective clothing,Wear eye protection,Wear a face shield.

6. ACCIDENT RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

No additional information available

For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid breathing vapours, spray. Avoid contact with skin, eyes and clothing.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further Information refer to section 8: "Exposure controls/personal protection".

Environmental precautions

Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Absorb spillage onto sand, earth or any suitable absorbent material. Transfer to a container for disposal. Wash spillage area with water.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse.

Storage: Store in original container and out of the reach of children, preferably in a locked storage area. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations.

Precautionary and engineering measures: Provide ventilation where necessary. Use a non-sparking, grounded ventilation system separate from other exhaust ventilation systems. Exhaust directly to the outside. Supply sufficient replacement air to make up for air removed.

Personal Protection: Have a safety shower/eye wash fountain readily available in the immediate work area. Wear suitable gloves when handling the product over long periods. Also wear safety goggles & face shield, boots, gloves, and / or respiratory protection. After handling product, wash hands and observe good hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off-white liquid

Odour: Odorless

Solubility in water: Disperse in water

pH: NA

Explosion properties : Not explosive.

Oxidising properties : Not oxidisive

10. STABILITY AND REACTIVITY

Reactivity:

Reactivity No information available.

Chemical stability:

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Heat, flame and extreme temperatures.

Incompatible materials

None known.

Hazardous decomposition products:

This product is chemically stable and no hazardous reactions should occur if stored and handled as prescribed / indicated. When thermally decomposed, may release hazardous and/or toxic fumes.

11. TOXICOLOGICAL INFORMATION

For Tebuthiuron TC:

Acute toxicity:

Acute oral toxicity: LD50 for male mice 528, female mice 620, male rats 477, female rats 387, rabbits 286, dogs >500, cats >200 mg/kg.

Skin and eye toxicity: Dermal toxicity: LD50 for rabbits >5000 mg/kg.

Irritation: Not a skin or eye irritant.

Sensitization: Not a skin sensitiser. Inhalation LC50 for rats 3.696 mg/l.

Chronic toxicity:

NOEL (2 y) for rats 40 mg/kg diet; LOEL for rats 80 mg/kg daily. Chronic systemic NOEL for mice 228 mg/kg daily.

Other

No evidence of teratogenicity (rats and rabbits).

12. ECOLOGICAL INFORMATION

For Tebuthiuron TC:

Birds Acute oral LD50 for chickens, bobwhite quail and mallard ducks >500 mg/kg. In 1 mo feeding trials, chickens receiving 1000 mg/kg showed no ill-effects.

Fish LC50 (96 h) for rainbow trout 144, goldfish and fathead minnows >160, bluegill sunfish 112 mg/l.

Daphnia LC50 297 ppm.

Algae EC50 for Anabaena 4.06, Navicula 0.081, Selenastrum 0.05, Skeletonema 0.05 ppm.

Other aquatic spp. EC50 for Lemna 0.135 ppm.

Bees LD50 >100 μg/bee.

13. DISPOSAL CONSIDERATION

Product : Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Empty remaining contents. Triple rinse containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. TRANSPORT INFORMATION

UN number: 3082

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains tebuthiuron)

Classification: 9

Packaging: III

15. REGULATARY INFORMATION

Follow local and international laws and regulations.

16. OTHER INFORMATION

Version: 1.0

Issue date: Oct. 1, 2023

Full text of H-statements

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H313 May be harmful in contact with skin

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effect

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 this company.

-- END OF MSDS --