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MATERIAL SAFETY DATA SHEET OF

TRICLOPYR 480G/L EC

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Supplier: Shanghai Bosman Industrial Co., Ltd.

Street address: Room 907, No.1611, North Sichuan Road, Hongkou District, Shanghai, P.R. China.

FAX: +86 21 60911557

TEL: +86 21 63065878

Product name: Triclopyr 480g/L EC

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Flammable liquids, Category 3 H226

Acute toxicity (oral), Category 4 H302

Acute toxicity (dermal), Category 5 H313

Acute toxicity (inhalation:vapour) Category 3 H331

Skin corrosion/irritation, Category 2 H315

Serious eye damage/eye irritation, Category 1 H318

Specific target organ toxicity – Repeated exposure, Category 2 H373

Hazardous to the aquatic environment – Acute Hazard, Category 2 H401

Hazardous to the aquatic environment – Chronic Hazard, Category 2 H411

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

Hazardous ingredients : Triclopyr 96% TC, Fatty alcohol polyoxyethylene ether, Solvent Naphtha

Hazard statements (GHS) :

H226 - Flammable liquid and vapour.

H302 - Harmful if swallowed.

H313 - May be harmful in contact with skin

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H331 - Toxic if inhaled.

H373 - May cause damage to organs through prolonged or repeated exposure.

H411 - 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.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 - Keep container tightly closed.

P240 - Ground and bond container and receiving equipment.

P241 - Use explosion-proof equipment.

P242 - Use non-sparking tools.

P243 - Take action to prevent static discharges.

P260 - Do not breathe 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.

P280 - Wear protective clothing, eye protection, face protection, protective gloves.

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

P302+P352 - IF ON SKIN: Wash with plenty of water.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a doctor, a POISON CENTER.

P312 - Call a doctor if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P330 - Rinse mouth.

P332+P313 - If skin irritation occurs: Get medical advice.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use carbon dioxide (CO2), dry extinguishing powder, foam to extinguish.

P391 - Collect spillage.

P233 - Keep container tightly closed.

P403+P235 - Store in a well-ventilated place. Keep cool.

P405 - Store locked up.

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

2.3. Other hazards

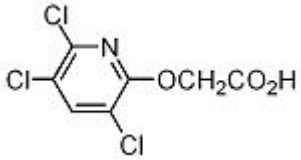
Adverse physicochemical, human health and environmental effects: Flammable liquid and vapour, May cause cancer, May cause genetic defects, May cause drowsiness or dizziness, Harmful if swallowed, Harmful in contact with skin, Causes skin irritation, Causes serious eye damage, Very toxic to aquatic life with long lasting effect

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formulation Type: Emulsifiable concentrate (EC)

Molecular Formula: $C_7H_4Cl_3NO_3$

Structural Formula:



Other ingredients determined not to be hazardous

INGREDIENT	CAS NO	PROPORTION
Triclopyr	55335-06-3	480g/L min.
Inerts	Not available	Up to 1L

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhalation: If inhaled, remove from contaminated area to fresh air and assist breathing as required. Seek medical attention if irritation occurs or if patient feels unwell after inhalation.

If skin contact: In case of contact, Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Obtain medical attention if irritation persists.

If eye contact: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention immediately.

If ingestion: Wash out mouth with water if the patient is alert and conscious. Do NOT induce vomiting . If vomiting occurs spontaneously, keep head below hips to avoid aspiration. Keep patient at rest and transport to nearest medical facility for further treatment. attention. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt, or waistband.

Advice to Doctor:

Treat symptomatically and supportively. There is no specific antidote for this product.

5. FIRE FIGHTING MEASURES

Extinguisher media:

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

Small Fire: Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam.

Large Fire: Water spray can be used for larger fires or cooling of unaffected stock but avoid the accumulation of polluted run-off from the site. Use as little water as possible.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Special hazards arising from the mixture:

Hazardous decomposition products in case of fire: Refer to Section 10: Stability and Reactivity.

Advice for fire-fighters: Avoid inhaling hazardous vapours. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent.

6. ACCIDENT RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed Containers. Dispose of materials or solid residues at an authorized site.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.Normal measures for preventive fire protection.

For precautions see section 2.2.

Storage: Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 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

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle r (US) or type ABEKP2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid

pH: NA

S.g./density: Not available

Solubility in water: Emulsifiable in water

Explosive properties: Not explosive

Oxidizing properties: Not oxidizing

10. STABILITY AND REACTIVITY

Reactivity:

None known

Chemical stability:

The product is stable for two years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Avoid direct sunlight.

Possibility of hazardous reactions:

No information available.

Conditions to avoid:

Avoid excessive heat sources.

Incompatible materials:

The product is incompatible with strong oxidizing agents.

Hazardous decomposition products:

Toxic materials are formed during exposure to high temperatures, (may include but not limited to carbon

monoxide and carbon dioxide).

11. TOXICOLOGICAL INFORMATION

For Triclopyr TC

Acute toxicity:

Oral Acute oral LD50 for male rats 692, female rats 577 mg/kg. Skin and eye Acute percutaneous LD50 for rabbits >2000 mg/kg. Mild eye irritant; non-irritating to skin (rabbits). Inhalation LC50 (4 h) for rats >256 ppm.

Chronic toxicity

NOEL (2 y) for rats 3.0 mg/kg b.w. daily, for mice 35.7 mg/kg b.w. daily.

12. ECOLOGICAL INFORMATION

For Triclopyr TC

Birds Acute oral LD50 for mallard ducks 1698 mg/kg. Dietary LC50 (8 d) for mallard ducks >5000, Japanese quail 3278, bobwhite quail 2935 mg/kg.

Fish LC50 (96 h) for rainbow trout 117, bluegill sunfish 148 mg/l.

Daphnia LC50 (48 h) 133 mg/l.

Algae EC50 (5 d) for Selenastrum capricornutum 45 mg/l.

Bees Non-toxic to bees; contact LD50 >100 μg/bee.

13. DISPOSAL CONSIDERATION

Waste Disposal

Big quantities, and still legal to use: Check with the supplier or manufacturer to determine if they will take it back. Or contact hazardous waste collection programs sponsored by local solid-waste management agencies to determine if they sponsor a collection program.

Small quantities: collect into a labelled container, properly. Prevent from unauthorized touching and spilling. When the waste reach enough quantities, contact a licensed hazardous waste contractor to dispose of it.

Container Disposal

Rinse containers before disposal. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or

puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm 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: 3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Triclopyr)

Class: 9

Packing Group: III

15. REGULATARY INFORMATION

Follow local and international laws and regulations.

16. OTHER INFORMATION

Version: 1.0

Issue date: Oct. 10, 2023

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 --