Add: No 2278, Zhaochong Rd, Shanghai, China.

Material Safety Data Sheet

Bromacil 80% WP

Section 1: Chemical Product and Company Identification

Product Name:

Bromacil 80% WP

Company Identification:

Spinochem Tech Co.,Ltd

Add: No.2278, Zhaochong Rd, Shanghai, China

Section 2: Composition, Information on Ingredients

Components	CAS Number	Content (%)
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Bromacil 314-40-9 80

Other ingredients ---- Up to 100

Section 3: Hazards Identification

Toxicity class: WHO Table 5; EPA IV

Likely routes of exposure: Eye contact, skin contact, ingestion, and inhalation.

Section 4: First Aid Measures

General: Have the product container, label or Material Safety Data Sheet with you when going for treatment. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given. **Skin contact:** Immediately flush skin with running water for at least 15 minutes, while removing contaminated clothing and shoes. Obtain medical attention immediately. Thoroughly clean contaminated clothing before re-use.

Eye contact: Immediately flush eyes with running water for at least 15 minutes. Get medical attention immediately.

Ingestion: If ingested, have victims drunk 6 to 8 ounces of water. Induce vomiting immediately only under the direct supervision of qualified medical personnel. Never give anything by mouth if victim is unconscious or convulsing. Transport to a clinic or hospital immediately.

Inhalation: Immediately remove victim to fresh air. If breathing has stopped, begin artificial respiration immediately. Transport to a clinic or hospital immediately.

Note to physician: No specific antidote. Treat symptomatically.

Section 5: Fire Fighting Measures

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Fire and Explosion Hazards: The material does not burn or burns with difficulty. It is not explosive. Airborne Bromacil dust may ignite. Should the chemical be involved in a general fire, ensure chemical protective clothing is used and self-contained breathing apparatus. Use water to cool containers, but water will be ineffective on fire.

Extinguishing media: Carbon dioxide, dry chemical powders, foam and water spray.

Section 6: Accidental Release Measures

Personal precautions: Restrict access to area until completion of clean up. Ensure clean-trained personnel conduct up only. All persons dealing with clean up should wear the appropriate chemically protective equipment. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions: Prevent material from entering sewers, waterways, or low areas. Dike far ahead of the spill for later recovery or disposal. Washings must be prevented from entering surface water drains. Uncontrolled discharge into watercourses must be alerted to the appropriate regulatory body.

Spill response/cleanup: Eliminate all sources of heat, sparks and flame. Ventilate area of release. Stop leak if you can do so without risk. Notify the appropriate authorities. For spills on the floor or other impervious surfaces, absorb spill with inert, noncombustible absorbent material, such as hydrated lime. Fuller's earth or other absorbent clays. Scoop up and place contaminated absorbent material into suitable containers for later disposal. Rinse spills area with soda lye. Do not flush to sewer or allow entering confined spaces. Large spills that soak into the ground should be dug up, placed in suitable containers and disposed of appropriately. Notify the appropriate authorities.

Section 7: Handling and Storage

Handling: Read the label before use.

Keep out of reach of children. Very dangerous. Poisonous if absorbed by skin contact, inhaled or swallowed. Avoid contact with eyes and skin. Do not touch or rub eyes, nose or mouth with hand when handling granules. Wear protective clothing and equipment as above.

Keep away from volatile chemicals and sources of ignition. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking washes hands, arms and face thoroughly with soap and water. After each day's use, wash gloves respirator and contaminated clothing with detergent and warm water. **Storage:** KEEP OUT OF REACH OF CHILDREN: Store in the closed, original container in a dry, cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilisers. DO NOT store in or around the home. Store below 45°C.

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Avoid extreme heat. Keep dry – moisture can increase handling hazards.

Section 8: Exposure Controls, Personal Protection

Ventilation and engineering measures: Provide sufficient ventilation to keep vapour concentration below the given TLV and/or PEL.

Personal protective equipment (PPE):

Respiratory protection: Respiratory protection is required. Wear a pesticide respirator jointly approved by the MSHA and NIOSH. Advice should be sought from respiratory protection specialists.

Skin protection: Wear appropriate protective clothing to prevent skin contact, such as coveralls or long sleeved shirt, long pants, and shoes and socks.

Eye / face protection: Wear impervious chemical gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton. Advice should be sought from glove suppliers on the proper selection of gloves.

Other protective equipment: Such as an eyewash station and safety shower, may be required depending on exposure and on workplace standards.

User safety recommendations: Users should: Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Section 9: Physical and Chemical Properties

Physical State: Beige powder

Odour: Odourless

Flash point: not applicable

Explosive properties: not explosive

Oxidizing properties: no oxidizing properties, non-corrosive.

Solubity in other solvents:

Xylene: 3.2g/100ml Acetone: 16.7g/100ml Acetonitrile: 7.1g/100mL

Solubility: 188mg/l water at room temperature (technical grade)

Section 10: Stability and Reactivity

Stability and reactivity: Stable under the recommended storage and handling conditions prescribed.

Hazardous polymerization: Will not occur.

Conditions to avoid: Extreme heat and sparks. Avoid contact with iron, strong alkali and storage above 120 $^{\circ}F$

Materials to Avoid and Incompatibility: Incompatible materials (see Section 7).

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Hazardous decomposition products: Will not occur under normal temperature and pressure.

Section 11: Toxicological Information

Acute toxicity:

Oral: LD_{50} for Rat > 5000mg/kg Dermal: LD_{50} for Rat > 2000mg/kg Inhalation: LC_{50} for Rat > 5.0 mg/l air

Irritant properties:

Skin: Irritant to skin (rabbits). Eye: Eye irritant (rabbits).

Skin sensitization: Not a skin sensitizer

Teratogenicity: No evidence was found to prove that this product is teratogenitic.

Carcinogenicity: Although Bromacil has not been determined to cause cancer, it is

considered by EPA to be possible carcinogen.

Mutagenicity: not mutagenic.

Section 12: Ecological Information

The following information is for the active ingredient, Bromacil.

Ecotoxicity:

Birds Acute oral LD50 for bobwhite quail 2250 mg/kg. Dietary LC50 (8 d) for mallard ducks and bobwhite quail >10 000 mg/kg diet.

Fish LC50 (48 h) for rainbow trout 75, bluegill sunfish 71, carp 164 mg/l.

Daphnia LC50 (48 h) 119 mg/l.

Other aquatic spp. LC50 for mysid shrimp (*Mysidopsis bahia*) 112.9 mg/l; EC50 for oyster embryo larvae 130 mg/l.

Bees Not toxic to bees.

Section 13: Disposal Considerations

WASTE: Pesticide wastes are toxic and hazardous. Dispose of in accordance with applicable and local laws and regulations. Do not discharge or pour into soil, drainage system or bodies of water.

CONTAINER: 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 (plastic containers). If burned, stay out of smoke.

Section 14: Transport Information

UN Number: 3077

UN Proper shipping name: Environmentally hazardous substance, Solid, N.O.S.

(Bromacil)

Add: No 2278, Zhaochong Rd, Shanghai, China.

Transport hazard class: 9

Packing group: III
Marine pollutant: Yes

Section 15: Regulatory Information

Hazard symbols:

Xi

Risk phrases:

R22 Harmful if swallowed

R36/37/38 Irritating to eyes/respiratory system/skin

Safety phrases:

S2- Keep out of the reach of children

S13- Keep away from food, drink, and animal feedstuffs.

S20/21- When using do not eat, drink or smoke

Indication of danger: Irritant WHO Classification: (a.i) U

Section 16: Additional 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 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. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.