



## MATERIAL SAFETY DATA SHEET

### Manufacturer/information service:

ZHEJIANG RAYFULL CHEMICALS CO., LTD

ADD: NO.52 PUCHANG ROAD, PUZHOU INDUSTRIAL PARK, LONGWAN DISTRICT,  
WENZHOU ZHEJIANG P.R. CHINA

Tel: +86-577-88905587

Fax: +86-577-88905567

Email: info@rayfull.com

sales@rayfull.com

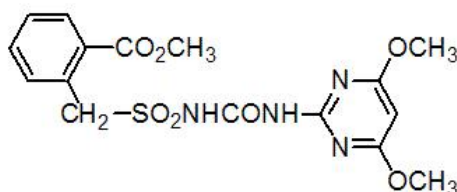
### 1. Chemical Product Identification

Common Name: Bensulfuron-methyl 95% TC

Molecular Formula:  $C_{16}H_{18}N_4O_7S$

Molecular Weight: 410.4

Structural Formula:



Chemical Name: methyl  $\alpha$ -[(4,6-dimethoxypyrimidin-2-ylcarbamoyl)sulfamoyl]-o-toluate

Form: Powder

Color: Off-white

Odor: Odorless

CAS No.: 83055-99-6

### 2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Bensulfuron-methyl	83055-99-6	95
Other ingredients	---	5

### 3. Hazards Identification

Potential Health Effects



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Eyes: Moderately irritating to the eyes. Irritation to the eyes is expected to be temporary.

Skin: Based on animal studies does not produce skin irritation or sensitization.

Inhalation: Due to large size of particles this material is not expected to be an inhalation hazard.

#### **4. First Aid Measures**

Eye: Contact Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call poison control center or doctor for treatment advice.

Inhalation: Move person to fresh air. If person is not breathing, call an ambulance, then give artificial respiration. Call a poison control center or doctor for further treatment advice.

Ingestion: Call a physician or Poison Control Center immediately Have person sip a glass of water if able to swallow Do not induce vomiting unless told to do so by a poison control center or doctor Never give anything by mouth to an unconscious person

#### **5. Fire-Fighting Measures**

Autoignition Temperature: 400°C / 752°F

Flammability Limits in Air: Not available

Extnguishing Media: Water spray, Foam Dry chemical Carbon dioxide (CO<sub>2</sub>).

Fire/Explosion Hazard: Dust explosion characteristics vary with the particle size, particle shape, moisture content, contaminants, and other variables.

Hazardous Combustion Products: None known.

#### **6. Accidental Release Measures**

Personal Precautions: Avoid contact with the skin and the eyes. Use personal protective equipment.

Environmental Precautions: Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits..

Methods for Clean-up: Take up mechanically and collect in suitable container for disposal.



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## **7. Handling And Storage**

Handling: Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Keep out of reach of children.

Storage: Keep in a dry, cool and well-ventilated place. Keep out of the reach of children

Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur.

## **8. Exposure Controls/Personal Protection**

Exposure Guidelines: No exposure limits have been assigned by Safe Work Australia to this product

Biological Limit Values: No biological limit allocated.

Engineering controls: Use in ventilated areas. Keep containers closed when not in use. No special engineering controls are required.

Personal Protective equipment (PPE):

Skin: When opening the container, preparing spray and using the prepared spray wear cotton overalls or equivalent clothing. Avoid contact with the skin.

Eye protection: Eye/face protection such as a face shield or goggles should be used when required.

Respiratory Protection: Generally not required. Use of a respirator may be required in certain circumstances to protect from inhalation of spray mist. After each days use, wash gloves and face shield or goggles and contaminated clothing.

## **9. Physical and Chemical Properties**

Appearance: Off-white powder

pH: 4.0-7.0

Loss on drying:  $\leq 0.5\%$

Melting point: 179.4°C

Boiling point: Decomposes before boiling

Bulk density: 1.41 g/ml

Partition Coefficient:  $\log P = 0.79$  (at pH 7, 20°C)

Vapour pressure:  $2.8 \times 10^{-9}$  mPa (25°C)

Solubility: 67 mg/l in water (20°C); In organic solvents: 5.1 g/l in acetone, 18.4 g/l in dichloromethane, 1.75 g/l in ethyl acetate, 0.229 g/l in o-xylene (all at 20°C).



## **10. Stability and Reactivity**

Chemical Stability: Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

Conditions to avoid: Keep away from strong oxidizing agents.

Incompatible materials: Strong oxidizing agent such as chlorates, nitrates, peroxides etc.

Hazardous decomposition products: if involved in a fire the product can emit toxic fumes

Will not polymerise.

Hazardous reactions: Avoid contact of the concentrate with strong alkalis and alkaline materials such as lime.

## **11. Toxicological Information**

Acute oral LD50 for rat: >5000 a.i.mg/kg.

Acute dermal LD50 for rat: >2000 a.i.mg/kg.

Inhalation LC50 (4 h) for rat: 7.5 a.i. mg/L.

Skin irritation: Non-irritant to skin (rabbits)

Eye irritation: Non-irritant to eyes (rabbits)

Skin sensitization: Not a skin sensitizer (guinea pigs).

## **12. Ecological And Ecotoxicological Information**

Effect on birds: low toxicity to birds, acute oral LD50 for Mallard ducks is >2510 a.i.mg/kg.

Effect on fish: moderate toxicity to fish, acute 96 hour LC50 for Rainbow trout is >66 a.i.mg/L.

Effect on aquatic invertebrates: low toxicity to aquatic invertebrates, acute 48 hour EC50 for Daphnia magna is 130 a.i.mg/L.

Effect on algae: moderate toxicity to algae, acute 72 hour EC50 for Raphidocelis subcapitata is 0.02 a.i.mg/L.

Effect on honeybees: low-moderate toxicity to honeybees, contact acute 48 hour LD50 is >100 a.i.µg/bee; oral acute 48 hour LD50 is >51.4 a.i.µg/bee.

Effect on earthworms: low toxicity to earthworms, acute 14 day LC50 for Eisenia foetida is >1000 a.i.mg/kg.

## **13. Disposal Considerations**



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Fax: +86-577-88905567

EMAIL: [info@rayfull.com](mailto:info@rayfull.com) [sales@rayfull.com](mailto:sales@rayfull.com)

**Waste Disposal Method:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance .

**Contaminated Packaging:** Non refillable container. Do not reuse this container. . Triple rinse or pressure rinse promptly after emptying. . Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of 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**

Not applicable.

### **15. Regulatory Information**

Not applicable.

### **16. Other Information**

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.