



MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

ZHEJIANG RAYFULL CHEMICALS CO.,LTD

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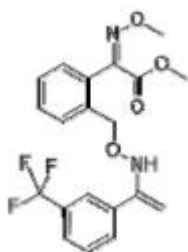
1. Chemical Product Identification

Product Name: Trifloxystrobin 95% TC

Molecular Formula: C₂₀H₁₉F₃N₂O₄

Molecular Weight: 408.37

Structural Formula:



Chemical Name:

Benzeneacetic acid, (E,E)- alpha-(methoxylmino)-2-((((1-(3-trifluoromethyl)phenyl)ethylidene)amino)oxy)methyl)-,methyl ester

Form: Powder

Colour: White

CAS No.: 141517-21-7

2. Composition / Information On Ingredients

Composition	Chemical name	Content (% w/w)
Active ingredient	Trifloxystrobin	95%
Other ingredient	-----	5%



3. Hazards Identification

Inhalation: Cough. Laboured breathing.

Sore throat. Skin contact: It caused some sensitisation

Eyes contact: It cause eye irritation if it is not rinsed out

Ingestion: May be fatal if swallowed.

4. First Aid Measures

Inhalation: Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.

Skin contact: Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately. Eyes contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.

Ingestion: Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended

5. Fire-Fighting Measures

Fire and explosion:

Flash Point: 593.6°F

Extinguishing media: Dry chemical, Foam, Carbon dioxide (CO₂), Water. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing. Evacuate personnel to safe areas. Avoid contact with spilled product or contaminated surfaces. Contain the spread of the fire-fighting media. Keep out of smoke. Do not allow run-off from fire fighting to enter drains or water courses. After fire is extinguished, do not turn on any ignition source until the area is determined to be free from explosion or fire hazard.

6. Accidental Release Measures

Consult an expert! Collect leaking and spilled liquid in sealed containers as far as possible.



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Absorb remaining liquid in sand or inert absorbent and remove to safe place. Sweep spilled substance into dry, sealed containers. Carefully collect remainder, then remove to safe place (extra personal protection: P3 filter respirator for toxic particles).

7. Handling And Storage

Handling: Always practice good industrial hygiene; handle with care, avoid personal contact. Do not get into eyes or skin, do not breathe mist or vapor of product. Do not swallow. Wash hands with soap and water and rinse after handling product. Shower after each shift. Wash all work clothing and completely clean all PPE after each shift.

Storage: Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container. Store in a place accessible by authorized persons only.

8. Exposure Controls/personal protection

Repeated or prolonged contact with skin may cause dermatitis, abnormalities and loss of fingernails. Lungs may be affected by repeated or prolonged exposure to the aerosol.

General Protection Keep and wash PPE separately from other laundry. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables use detergent and warm/tepid water.

Eye/Face Protection Safety glasses with side-shields

Hand protection Chemical resistant nitrile rubber gloves

Body Protection Wear long-sleeved shirt and long pants and shoes plus socks. Coveralls

Respiratory protection When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendation

9. Physical And Chemical Properties

Appearance: White powder

Melting point: 70.9-72.9

Density: 1.36g/l (20°C)

Vapour Pressure: 3.4×10^{-6} Pa (25°C)

Solubility: Soluble in water 610µg/L at 25°C (not affected by pH 4-10), soluble in Acetone >500 g/L, Dichloromethane >500 g/L, Ethyl acetate >500 g/L, Hexane 11g/L,



Methanol 76g/L, Octanol 18 g/L, Toluene 500 g/L.

Moisture content: $\leq 1.0\%$

10. Stability And Reactivity

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid: None known.

Incompatibility with other materials: None known.

Hazardous decomposition products: Thermal decomposition, Hydrogen chloride (HCl), Amines, Nitrogen oxides(NOx), Carbon monoxide.

11. Toxicological Information

Acute oral LD50 for rats is >5000 a.i.mg/kg.

Acute dermal LD50 for rats is >2000 a.i.mg/kg.

Acute inhalation toxicity LC50 (4 h) for rats is >4.6 a.i.mg/L.

Skin irritation: Non-irritating to skin (rabbits).

Eye irritation: Non-irritating to eyes (rabbits).

Skin sensitization for guinea pig: Sensitizer (Magnusson & Kligman test).

12. Ecological And Ecotoxicological Information

Effect on birds: Acute oral LD50 for Bobwhite quail is >2000 mg/kg.

Effect on fish: Acute LC50 (96 h) for Rainbow trout is 0.022 mg/l.

Effects on aquatic invertebrates: Acute EC50 (48 h) for Daphnia magna is 0.011 mg/l.

Effects on algae: Acute 72 hour EC50 for Scenedemus subspicatus is 0.0053 mg/l.

Effects on bees: contact acute 48 hour LD50 is >100 $\mu\text{g}/\text{bee}$, oral acute 48 hour LD50 is >110 $\mu\text{g}/\text{bee}$.

Effects on earthworms: Acute 14 day LC50 is >1000 mg/kg.

13. Disposal Considerations

Must be dumped or incinerated in accordance with local regulations.

Contaminated packaging:

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

Contaminated packaging should be emptied as far as possible and disposed of in accordance with official regulations after being thoroughly cleaned.



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Uncontaminated packaging may be treated as household waste.

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.