



## MATERIAL SAFETY DATA SHEET

### Manufacturer/information service:

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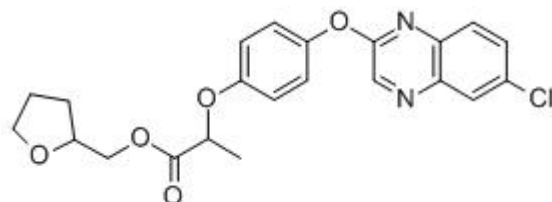
### 1. Chemical Product Identification

Common Name: Quizalofop-P-tefuryl 95% TC

Molecular Formula: C<sub>22</sub>H<sub>21</sub>ClN<sub>2</sub>O<sub>5</sub>

Molecular Weight: 428.89

Structural Formula:



Chemical Name: (RS)-tetrahydrofurfuryl (R)-2-[4-(6-chloroquinoxalin-2-yloxy)phenoxy] propionate

Form: Powder

Color: Off-white

CAS No.: 119738-06-6

### 2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Quizalofop-P-tefuryl	119738-06-6	95
Other ingredients	---	5

### 3. Hazards Identification

Environmental hazard: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



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

Ingestion: Do not induce vomiting. Rinse mouth with water. Obtain medical attention.

Skin contact: Remove contaminated clothing. Wash thoroughly with warm water using a mild soap. Obtain medical attention if irritation persists.

Inhalation: Remove to fresh air. Obtain medical attention.

Eye contact: Immediately flush eyes with water and continue washing for several minutes. Obtain medical attention if irritation persists.

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

Extinguishing media: For large fires: Foam. Alcohol resistant foam. For small fires: Carbon dioxide. Dry chemical powder.

Unsuitable extinguishing media: Jet of water.

Hazardous thermal (de)composition products: Irritating vapours: Carbon oxides, Nitrogen oxides.

Special procedures: Do not discharge extinguishing waters into the environment.

Protection of fire fighters: Full protection clothing. Self-contained breathing apparatus with full face shield.

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

Personal precautions: Wear proper protective equipment. Avoid contact with skin and eyes.

Environmental precautions: Prevent entry to sewers and public waters. Do not empty into drains.

Methods for cleaning up: Soak up small spills with inert solids. Absorb remainder in sand or inert material. Use suitable disposal containers.

After spillage and/or leakage: Impound and recover large spillages. Clean up large spills with pump or vacuum.

#### **7. Handling And Storage**

Handling: Avoid contact with skin and eyes. Do not breath vapours. Wash hands and face after handling thoroughly with soap and water. Provide adequate ventilation.

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



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occur.

## 8. Exposure Controls/Personal Protection

Engineering measures: Provide local exhaust or general room ventilation to minimize dust and/or vapour concentrations.

Respiratory protection: An approved organic vapour respirator/supplied air or self-contained breathing apparatus must be used when vapour concentration exceeds applicable exposure limits.

Skin protection: Wear suitable protective clothing, gloves.

Hand protection: Chemical resistant gloves.

Eye protection: Safety glasses with side guards.

Others: Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

## 9. Physical and Chemical Properties

Appearance: Off-white powder

Water content:  $\leq 0.3\%$

Acidity (as H<sub>2</sub>SO<sub>4</sub>):  $\leq 0.3\%$

Melting point: 58.3 °C

Boiling point: Decomposes before boiling

Bulk density: 1.28 g/ml

Partition Coefficient:  $\log P = 4.32$  (at pH 7, 20 °C)

Vapour pressure:  $7.9 \times 10^{-3}$  mPa (25 °C)

Solubility: 3.13 mg/l in water (20 °C); In organic solvents: 221 g/l in acetone, 64 g/l in methanol, 12 g/l in hexane, 652 g/l in toluene (all at 20 °C).

## 10. Stability and Reactivity

Stability: Stable under normal circumstances.

Hazardous decomposition products: Irritant fumes. Carbon oxides. Nitrogen oxides.

Materials to avoid: Strong acids, bases, oxidizing substances.

Hazardous polymerization: Will not occur.

## 11. Toxicological Information



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Acute oral LD50 for rat: 1012 a.i.mg/kg

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

Acute inhalation toxicity LC50 (4 h) for rats: >3.9 a.i.mg/L

Skin irritation: Non-irritating to skin (rabbits)

Eye irritation: Non-irritating to eyes (rabbits)

Skin sensitization: Sensitiser (guinea pigs)

## 12. Ecological And Ecotoxicological Information

Effect on birds: Acute oral LD50 for Bobwhite quail is >2150 a.i.mg/kg.

Effect on fish: Acute LC50 (96 h) for Bluegill sunfish is 100 a.i.mg/l.

Effects on aquatic invertebrates: Acute EC50 (48 h) for Daphnia magna is >1.51 a.i.mg/l.

Effects on algae: Acute 72 hour EC50 for Pseudokirchneriella subcapitata is >1.9 a.i.mg/l.

Effects on bees: contact acute 48 hour LD50 is >100 a.i.µg/bee, oral acute 48 hour LD50 is >100 a.i.µg/bee.

Effects on earthworms: Acute 14 day LC50 is >500 a.i.mg/kg.

## 13. Disposal Considerations

Waste-disposal procedures: Do not dump into sewers, on the ground or into any body of water. Remove according to national or local legislation.

Contaminated packaging: Dispose products in an authorized installation. Remove as chemical waste, according to national or local legislation.

## 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



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