

### MATERIAL SAFETY DATA SHEET

PRODUCT : Quizalofop-ethyl 5% EC

PRODUCT DESIGNATION : Herbicide

#### **Section 1. Product & Company Identification**

Common Name : Quizalofop-ethyl  
Grade : Formulation  
Active Ingredient : Quizalofop-ethyl  
Chemical Name of Active : ethyl 2-[4-(6-chloroquinoxalin-2-yl)oxyphenoxy]propanoate  
Ingredient (IUPAC)  
Chemical Family of A. I. : aryloxyphenoxypropionate  
Molecular Formula of A. I. : C<sub>19</sub>H<sub>17</sub>ClN<sub>2</sub>O<sub>4</sub>  
Molecular Mass of A. I. : 372.8 g/mol  
Manufacturer & Supplier : **M/s United Chemicals**  
**Head office:**B-371, 1<sup>st</sup> Floor, Meera Bagh, New Delhi,  
**Factory:**15/1, 15/2, 15/3, Industrial Estate, Vidisha,  
(M.P)  
Telephone Number : +91-11-25258770

#### **Section 2. Composition / Information on Ingredients**

| <u>Name of Components</u> | <u>Concentration% w/w</u> |
|---------------------------|---------------------------|
| Quizalofop-ethyl a.i.     | 05.00% w/w                |
| Inert Ingredients         | 95.00% w/w                |
| <b>TOTAL</b>              | <b>100.00% w/w</b>        |

---

### Section 3. Hazards Identification

---

#### Biological hazards:

Eye contact: May cause irritation.

Skin contact: Not a skin irritant.

Ingestion: May cause nausea, vomiting, and diarrhoea.

Inhalation: May cause irritation.

---

### Section 4. First Aid Measures

---

**General advice :** Never give anything by mouth to an unconscious person.

**Inhalation :** Move to fresh air. Consult a physician after significant exposure. Artificial respiration and/or oxygen may be necessary.

**Skin contact :** Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician. Wash contaminated clothing before re-use.

**Eye contact :** If easy to do, remove contact lens, if worn. Hold eye open and rinse slowly and gently with water for 15-20 minutes. If eye irritation persists, consult a specialist..

**Ingestion :** Obtain medical attention. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is conscious: Rinse mouth with water.

#### Notes to physician

Treatment : Treat symptomatically

---

### Section 5. Fire Fighting Measures

---

**Suitable Extinguishing Media:** Water, foam, dry chemicals or CO<sub>2</sub>.

**Unsuitable extinguishing media:** Water stream

**Special Fire Fighting Procedures:** Firefighters should wear self-contained breathing apparatus and full fire-fighting turn out gear. Use water spray. Cool tank/container with water spray

**Special hazards in fire:** Product is classified as a C1 combustible product. There is no risk of an explosion from this product under normal circumstances. Combustion may release carbon dioxide, nitrogen oxides, and/or chlorine compounds.

---

### Section 6. Accidental Release Measures

---

**Emergency procedures:** Wear protective equipment to prevent skin and eyes being affected. Evacuate unprotected and unnecessary personnel from area of spill. If material is leaking from a container, stop the leak only if this can be done safely. Prevent spillage entering drains or watercourse.

**Personal Precautions:** Wear appropriate protective gear for the situation. Keep people and animals away and upwind. Review Fire-Fighting Measures and Handling (Personnel) sections before proceeding with clean-up. Use appropriate Personal Protective Equipment during clean-up. Prevent material from entering sewers, waterways, or low areas.

**Methods for containment & cleanup:** Vermiculite, Sand, Soil is a suitable absorbent, especially soils high in clay. Soil can be used to form bunds to contain spillage. Contaminated soil should be collected for disposal at a suitable landfill. Contaminated area and tools should be washed down with hypochlorite bleach. Personal protective equipment and clothing should be washed with soapy water.

---

### Section 7. Handling & Storage

---

**Handling:** All chemicals should be considered hazardous. Avoid direct physical contact. Use appropriate, approved safety equipment. Keep out of reach of children. Avoid contact with the eyes, skin and clothing and avoid inhalation of product or spray mist. If in eyes, wash it immediately with water. After handling and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. Do not contaminate food or use on household tanks.

**Storage:** Store in the closed, original container in a dry, cool, well-ventilated area, secure area at minimum storage temperatures. Store in locked room or place away from children, animals, food, animal feed, seed and fertilizers.

---

### Section 8. Exposure Control, Personal Protection

---

**Engineering Controls:** Use only with adequate ventilation. Keep container tightly closed

**Respiratory Protection:** Use NIOSH/MSHA approved respirator appropriate for exposure of concern. **Eye Protection:** Chemical goggles.

**Protective Clothing:** Rubber gloves, respirator, boots, long sleeved shirt or jacket, long pants

---

### Section 9. Physical and Chemical Properties

---

|                      |                             |
|----------------------|-----------------------------|
| Appearance / state   | : light yellow clear liquid |
| Colour               | : light yellow clear        |
| Odour                | : Aromatic                  |
| pH                   | : 5.1 - 6.1                 |
| Flash point          | : 62.1                      |
| Relative Density     | : 0.86 - 0.96               |
| Explosive Properties | : Not an explosive          |

---

### Section 10. Stability & Reactivity

---

**Conditions To Avoid:** Very high or low temperatures.

**Stability:** Stable under normal conditions. Active may degrade in strong UV light.

**Polymerization:** Will not occur.

**Hazardous decomposition products:** Oxides of nitrogen and chlorine. Burning with limited oxygen may produce carbon monoxide.

**Incompatible Materials:** Strong oxidising agents.

---

### Section 11. Toxicological Information

---

**Acute Oral Toxicity** LD<sub>50</sub> for rats : >1210 mg/kg

**Acute Dermal Toxicity** LD<sub>50</sub> Rabbit : >2,000 mg /kg

**Eye Irritation** Rabbit : slightly eye irritant

**Skin Irritant** Rabbit : Moderate skin irritant

**Skin sensitization** Guinea pig : Not a skin sensitizer

---

### Section 12. Ecological Information

---

**Toxicity to fish:** Rainbow trout, LC<sub>50</sub> (96h) >0.5 mg/l

**Toxicity to Bird** (Bobwhite quail)(Mallard duck), LD<sub>50</sub>: >2000 mg/kg

**Toxicity to Bee,** LD<sub>50</sub> non toxic to bees

---

### Section 13. Disposal Consideration

---

All chemical are considered acutely toxic. Dispose of in an approved manner (consult local authority) only as a last resort. Otherwise, apply according to label instructions. Consult label and Directions for Use.

---

### Section 14. Transport Information

---

#### IMDG Classification

**Shipping name** : Environmentally Hazardous Substance, Liquid, N.O.S.  
**Class** : 9  
**Packing group** : III  
**UN number** : 3082  
**Marine pollutant** : Yes

---

### Section 15. Regulatory Information

---

#### R-phrases

**R20** Harmful by inhalation.

**R22** Harmful if swallowed.

**R41** Risk of serious damage to eyes.

**R65** Harmful – may cause lung damage if swallowed.

**R51/53** Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment.

#### Safety phrases:

**S20/21** When using do not eat or drink/smoke

**S23** Do not breathe spray.

**S24/25** Avoid contact with skin/eyes

**S29/35** Do not empty into drains/Dispose of material and container in a safe way

---

### Section 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

**Admn. Off. :** B-371, 1st Floor, Meera Bagh, Delhi-110063 (India)  
Ph. : 25258770, 25258771, 25258772, 42334229

**E-mail :** utc\_chemicals@hotmail.com  
info@unitedchemicals.in

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 in 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 produces formulations(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

**Safety Division : UNITED CHEMICALS, SAFETY DIVISION**

