

### MATERIAL SAFETY DATA SHEET

PRODUCT : Quizalofop-ethyl 10% 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**

<b>Name of Components</b>	<b>Concentration% w/w</b>
Quizalofop-ethyl a.i.	10.00% w/w
Inert Ingredients	90.00% w/w
<b>TOTAL</b>	<b>100.00% w/w</b>

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### Section 3. Hazards Identification

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#### Biological hazards:

Flammable liquid and vapour.

May be fatal if swallowed and enters airways.

Causes skin irritation

May cause an allergic skin reaction

Causes serious eye damage.

Harmful if inhaled

May cause respiratory irritation.

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### Section 4. First Aid Measures

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**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

#### Most important symptoms and effects, both acute and delayed

#### Symptoms

Local:, Respiratory disorder Systemic:, Ingestion may provoke the following symptoms:., Dizziness, Headache, Diarrhoea, Gastro-intestinal irritation, Vomiting, Nausea, Somnolence, Breathing difficulties, Cough, Cyanosis, Fever

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### Section 5. Fire Fighting Measures

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**Suitable Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable extinguishing media:** High volume water jet

**Special hazards arising from the substance or mixture :** Dangerous gases are evolved in the event of a fire.

**Special protective equipment for fire-fighters :** In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

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### Section 6. Accidental Release Measures

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**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.

**Environmental precautions :** Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

**Methods for cleaning up :** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Clean floors and contaminated objects with plenty of water

**Additional advice :** Check also for any local site procedures.

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### Section 7. Handling & Storage

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**Handling:** No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation.

**Advice on protection against fire and explosion :** Keep away from heat and sources of ignition. Vapours may form explosive mixture with air. Take measures to prevent the build up of electrostatic charge. Use only explosion-proof equipment.

**Hygiene measures :** When using, do not eat, drink or smoke. Remove soiled clothing immediately and clean thoroughly before using again. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly with soap and water after

handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Wash hands immediately after work, if necessary take a shower.

### **Conditions for safe storage, including any incompatibilities**

**Requirements for storage areas and containers. :** Store in a place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from freezing. Keep away from direct sunlight.

**Advice on common storage :** Keep away from food, drink and animal feedingstuffs

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## **Section 8. Exposure Control, Personal Protection**

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

**Respiratory Protection:** Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

**Hand protection :** Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness of 0,4 mm). Wash when contaminated and dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

**Eye Protection:** Chemical goggles.

**Skin and body protection :** Wear standard coveralls and Category 3 Type 4 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

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### Section 9. Physical and Chemical Properties

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<b>Appearance / state</b>	: Liquid
<b>Colour</b>	: Clear, amber
<b>Odour</b>	: Liquid hydrocarbon/solvent odour
<b>pH</b>	: 5.1 - 6.1
<b>Boiling Point</b>	: 62.1
<b>Specific Gravity</b>	: 1.02-1.03 at 20°C
<b>Water Solubility</b>	: Emulsifiable
<b>Vapour Pressure</b>	: Expected to be low at 100°C

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### Section 10. Stability & Reactivity

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#### Reactivity:

This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

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#### Fire Decomposition:

Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas. Hydrogen chloride gas, other compounds of chlorine. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

#### Polymerisation:

This product will not undergo polymerisation reactions

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### Section 11. Toxicological Information

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

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

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**Eye Irritation Rabbit :** slightly eye irritant

**Skin Irritant Rabbit :** Moderate skin irritant

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

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### Section 12. Ecological Information

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**Toxicity to fish:** Rainbow trout, LC50 (96h) >0.5 mg/l

**Toxicity to Bird (Bobwhite quail)(Mallard duck),** LD50: >2000 mg/kg

**Toxicity to Bee,** LD50 non toxic to bees

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### Section 13. Disposal Consideration

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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.

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### Section 14. Transport Information

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#### IMDG Classification

**Shipping name :** Environmentally Hazardous Substance, Liquid, N.O.S.

**Class :** 9

**Packing group :** III

**UN number :** 3082

**Marine pollutant :** Yes

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### Section 15. Regulatory Information

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#### 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:**

**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

**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

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### Section 16. Other Information

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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 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**



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