



# MATERIAL SAFETY DATA SHEET

## Tiger 10 EC

### IDENTIFICATION OF THE SUPPLIER:

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### PRODUCT IDENTIFICATION:

**Common Name:** Quizalofop – p- Ethyl  
**Trade Name:** Tiger 10 EC  
**Uses category:** Herbicide  
**Type of formulation:** Emulsion concentrate (EC)  
**Chemical Name:** ethyl (R)-2-[4-(6-chloroquinoxalin-2-yloxy)phenoxy]propionate  
**Chemical Formula:** C<sub>19</sub>H<sub>17</sub>ClN<sub>2</sub>O<sub>4</sub>  
**Molecular Weight:** 372.8

### PRODUCT COMPOSITION:

<b>Active Ingrédient:</b>	<b>CAS #</b>	<b>% w/v</b>
Quizalofop – p- Ethyl	[119738-06-6]	10.52%
<b>Inert ingrédient:</b>		
Blend of anionic and nonionic surfactants		4%
Blend of anionic and nonionic surfactants		3%
Xylenes (o-, m-, p-isomers)	[1330-20-7]	81.7 %





## HAZARDS IDENTIFICATION:

**Danger:** causes irreversible eye damage. Harmful if swallowed, inhaled, or absorbed through the skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist.

### **Physical Properties:**

Appearance: Yellow liquid.

Odor: Aromatic hydrocarbon.

### **Symptoms of acute exposure:**

Symptoms from excessive prolonged inhalation exposure may include headache, dizziness, and confusion. Ingestion may initially include jaundice, bloody urine, flank pain, anemia, red blood cell destruction, hemolysis and acute renal failure. Higher exposure may lead to lens opacity, temporary nervous system depression resulting in dizziness, headache, confusion, in coordination, loss of consciousness. Coma and fatality (gross overexposure) may also occur.

### **Symptom of chronic Exposure:**

Prolonged exposure may include burning, redness, swelling, pain, blisters, cracking, or rash.

### **Primary Routes of exposure:**

Oral, dermal, ingestion, inhalation.

### **Unusual fire, explosion, and reactivity hazards:**

Combustible: keep away from heat, sparks, and open flames. Keep container closed, vapor forms explosive mixture with air, heating can release vapors which can be ignited.

## FIRST-AID MEASURES:

**If in eyes:** hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present after first 5 minutes, and then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If on skin or clothing:** take off contaminated clothing, rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.





**If swallowed:** call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If inhaled :** move person to fresh air, if person is not breathing give artificial respiration preferably mouth to mouth if possible. Call a poison control center or doctor for further advice.

#### **FIRE-FIGHTING MEASURES: -**

**Flashpoint (test method):** 98.9°C (210°F) setaflash.

**Appropriate extinguishing media:** water spray, foam, dry chemical, CO2.

**Fire fighting guidance:** evacuate personal to safe area, keep personal removed and upwind of fire. Wear self-contained breathing apparatus. Cool tank/container with water spray.

**Unusual fire, explosion, and reactivity hazards:** Vapor forms explosive mixture with air, heating can release vapors which can be ignited.

#### **ACCIDENTAL RELEASE MEASURE:**

##### **In case of spills or leaks:**

Review fire fighting measures and handling sections before proceeding with clean-up. Use appropriate personal protective equipment during clean-up. Keep unnecessary people away and isolate hazards area. Prevent material from entering sewers, waterways or low areas. Soak up with sawdust, sand, oil dry or other absorbent material. Shovel or sweep up and then place in a chemical waste container for disposal. If spill area is on ground near trees or other valuable plants remove top 2 inches of soil after cleanup refer to section 13 for disposal information and section 15 for reportable quantity information.





## PERSONAL PROTECTION/SAFTETY:

### Engineering controls:

Use only with adequate ventilation. Keep container tightly closed.

### User safety recommendations:

Users should remove clothing immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing, as soon as possible, wash thoroughly and change into clean clothing.

### Applicators and other handlers must wear:

- Long- sleeved shirt and long pants.
- Chemical- resistant gloves, such as barrier laminate or viton.
- Shoes plus socks.
- Protective eyewear.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this products concentrate. Do not reuse them; follow manufactures instruction for cleaning /maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

## HANDLING AND STORAGE:

### Handling:

Do not get in eyes, avoid breathing vapors or mist, avoid contact with skin, avoid contact with clothing, wash thoroughly after handling, wash clothing after use. Do not store or consume food, drink, or tobacco in areas where they may become contaminated with this material. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing, remove personal protective equipment immediately after handling this product, wash the outside of gloves before removing, as soon as possible, wash thoroughly and change into clean clothing.

### Precautions in storing:

Store product in original container only, do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool dry place, keep away from heat, sparks and open flames.





## STABILITY AND REACTIVITY:

**Stability:** stable at normal temperatures and storage condition.

**Hazardous polymerization:** polymerization will not occur.

**Hazardous mixtures:** none known.

**Conditions to avoid:** none known.

## PHYSICAL AND CHEMICAL PROPERTIES:

**Appearance:** yellow liquid.

**Odor:** aromatic hydrocarbon.

**Specific gravity:** 0.92 g/ml  $\pm$  0.05

**PH:** 5

**Flammability:** flammable

**Explosivity:** not explosive

**Corrosively:** non corrosive

**Emulsion stability:** Stable.

## TOXICOLOGICAL INFORMATION:

### Acute toxicity/ irritation studies:

Ingestion	Acute oral LD50	5900 mg/kg (rats-male) 4100 mg/kg (rats-female)
Dermal	Acute dermal LD <sub>50</sub>	> 2.0000 mg/kg ( rabbit )
Inhalation	4 hour LC50	2.6mg/l(rat-male),4.4mg/l (rat- female)
Eye contact	Severe irritant	-
Skin contact	Moderate irritant	-
Skin absorption	Not considered a skin sensitizer	-

### Mutagenic potential:

Negative results in the following tests: Ames and Chinese hamster ovary (CHO) test for gene mutations. CHO and mouse micronucleus tests from aberrations. DNA repair assays in B. subtilis and rat liver cells, sister chromatid exchange assay in Chinese cells.





### **Reproductive hazards potential:**

Tests rat at level of 0, 25, 100, 400, ppm. Decreased body weight occurred at 100 and 400 ppm. NOEL was 25 ppm (approximately 1.25 mg/kg/day).

### **Mutagenicity:**

Negative results in the following tests for the active ingredients: Ames and Chinese hamster ovary (CHO) test for gene mutations, CHO and mouse micronucleus tests for chromosomal aberrations, DNA repair assays in B. subtilis and rat liver cells. Sister chromatid exchange assay in Chinese hamster cells.

### **Carcinogenicity:**

In animal testing did not cause carcinogenicity. This material is not considered a unique development hazard to conceptus or a unique reproductive hazard.

### **ECOLOGICAL INFORMATION: -**

This chemical is toxic to fish. Do not apply directly to water, or to areas where water is present, or to intertidal areas below the mean high water mark. Do not contaminate when cleaning equipment or disposing of equipment wash waters. Practically non-toxic to birds and bees.

### **Ecotoxicity data shown below is for the active ingredient:**

96- Hr LC50 bluegill sunfish: 0.46- 2.9 mg/l, 96- hr LC50 rainbow trout: 10.7 mg/l

### **DISPOSAL CONSIDERATIONS:**

#### **Product disposal:**

Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### **Container disposal:**

Triple rinse or (equivalent) container. Then offer the container for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Do not contaminate water when cleaning container or disposing of container wash waters.

