

1 Identification

· Product identifier

· Trade name: **Targa® Herbicide**

· Article number: US42592-57574

· CAS Number:

EPA Registration No.: 33906-9-81880

Active Ingredient: Quizalofop-P-Ethyl (10.3%), CAS:100646-51-3

· Application of the substance / the mixture Agricultural herbicide

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Gowan Company, LLC.

P.O. Box 5569

Yuma, Arizona 85366-5569

(928) 783-8844

· Information department: sds@gowanco.com

· Emergency telephone number:

Chemtrec® Emergency Telephone 24 - Hours: (Spills, leak or fire) Inside U.S. & Canada: (800) 424-9300

Outside the U.S. & Canada: +011 (703) 527-3887

For medical emergency (ProPharma Group®): (888) 478-0798

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Carcinogenicity 2

H351 Suspected of causing cancer.

Toxic to Reproduction 1B

H360 May damage fertility or the unborn child.

Aspiration Hazard 1

H304 May be fatal if swallowed and enters airways.



GHS05 Corrosion

Eye Damage 1

H318 Causes serious eye damage.



GHS09 Environment

Aquatic Chronic 2

H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Toxicity - Oral 4

H302 Harmful if swallowed.

Acute Toxicity - Inhalation 4

H332 Harmful if inhaled.

Aquatic Acute 2

H401 Toxic to aquatic life.

· Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms**

GHS05 GHS07 GHS08 GHS09

· **Signal word** *Danger*· **Hazard-determining components of labeling:***Quizalofop-p-ethyl*· **Hazard statements***H302+H332 Harmful if swallowed or if inhaled.**H318 Causes serious eye damage.**H351 Suspected of causing cancer.**H360 May damage fertility or the unborn child.**H304 May be fatal if swallowed and enters airways.**H401 Toxic to aquatic life.**H411 Toxic to aquatic life with long lasting effects.*· **Precautionary statements***P261 Avoid breathing dust/fume/gas/mist/vapors/spray**P280 Wear protective gloves/protective clothing/eye protection/face protection.**P301+P310 If swallowed: Immediately call a poison center/doctor.**P330 Rinse mouth.**P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.**P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Hazard description:***DANGER! Causes irreversible eye damage. Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing vapors or spray mist.*· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 1

Fire = 1

Reactivity = 0

HAZARD INDEX:

4 Severe Hazard

3 Serious Hazard

2 Moderate Hazard

1 Slight Hazard

0 Minimal Hazard

· **Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable in US.· **vPvB:** Not applicable in US.

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 100646-51-3	Quizalofop-p-ethyl	10.3%
	⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Toxicity - Oral 4, H302; Acute Toxicity - Dermal 4, H312	

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

You may also contact 1-888-478-0798 for emergency medical treatment information.

· **After inhalation:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call poison control center or doctor for further treatment advice.

· **After skin contact:**

- 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.

· **After eye contact:**

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

· **After swallowing:**

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

· **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** Unknown
- **Indication of any immediate medical attention and special treatment needed** None

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards arising from the substance or mixture**

Vapor forms explosive mixture with air. Heating can release vapors which can be ignited.

· **Advice for firefighters** Cool tank/container with water spray.

- **Protective equipment:** Wear self-contained respiratory protective device.

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6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

This pesticide is toxic to fish and invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- **Protective Action Criteria for Chemicals**

- **PAC-1:**

None of the ingredients are listed.

- **PAC-2:**

None of the ingredients are listed.

- **PAC-3:**

None of the ingredients are listed.

7 Handling and storage

- **Handling:**

- **Precautions for safe handling**

DANGER! Causes irreversible eye damage. Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing vapors or spray mist.

- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.

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

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Store product in original container only. Store in a cool dry place.

- **Information about storage in one common storage facility:** Store away from foodstuffs.

- **Further information about storage conditions:** Store in a cool, dry place.

- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information:** The lists that were valid during the creation were used as basis.

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· Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

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.

· Protection of hands:



Protective gloves

· **Material of gloves** Chemical-resistant gloves.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Safety glasses

· Body protection:

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

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

- **Form:** Liquid
- **Color:** Yellow
- **Odor:** Aromatic
- **Odor threshold:** Not determined.

· **pH-value at 20 °C (68 °F):** 5.6

· Change in condition

- **Melting point/Melting range:** Undetermined.
- **Boiling point/Boiling range:** Undetermined.

· **Flash point:** 98 °C (208.4 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 270 °C (518 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not self-igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

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· Explosion limits:	
· Lower:	Not determined.
· Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density at 20 °C (68 °F):	8.34 - 8.68 lbs/gal
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· Water:	Dispersible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
· Dynamic:	Not determined.
· Kinematic:	Not determined.
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable under normal conditions
 - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:

Oral	LD50	5,900 mg/kg (rat) (male)
	LD50	4,100 mg/kg (rat) (female)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	2.6 mg/l (rat) (male)

- **Primary irritant effect:**
 - **on the skin:** Moderately Irritating
 - **on the eye:** Severe irritant
- **Sensitization:** No sensitizing effects known.
- **Other information (about experimental toxicology):**

Reproductive Hazard Potential

Tests ran at levels of 0, 25, 100, 400 ppm. Decreased body weights were observed for parents and offspring in the weights occurred at 100 and 400 ppm. NOEL was 25 ppm (approximately 1.25 mg/kg/day).

Teratogenicity

Dose levels were 0, 7, 15, 30 and 60 mg/kg/day. The active ingredient was not teratogenic or

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embryotoxic at any level.

Mutagenicity

Negative results in the following tests for the active ingredient: 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, *n*-methyl-2-pyrrolidone did not cause carcinogenicity. This material is not considered a unique developmental hazard to conceptus or a unique reproductive hazard.

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

· NTP (National Toxicology Program)

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

12 Ecological information

· Toxicity

This pesticide is toxic to fish and invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· Other information:

Fish acute: trout LC50 0.72 mg/L

Fish chronic: fathead minnow NOAEC 0.01 mg/L

Daphnia acute: EC50 51.9 mg/L

· Behavior in environmental systems:

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· Ecotoxicological effects:

· **Remark:** Toxic for fish

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**· **Recommendation:**

Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

· **Uncleaned packagings:**· **Recommendation:**

Container Disposal: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available.

For Plastic Containers: [non-refillable, less than 5 gallons] Triple rinse container (or equivalent) promptly after emptying. 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. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

For Plastic Containers: [non-refillable, greater than 5 gallons] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

14 Transport information

· **UN-Number**· **DOT**

Void

· **ADR, IMDG, IATA**

UN3082

· **UN proper shipping name**· **DOT**

Void

· **ADR**

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

· **IMDG, IATA**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

· **Transport hazard class(es)**· **DOT**· **Class**

Void

· **ADR, IATA**· **Class**

9 Miscellaneous dangerous substances and articles

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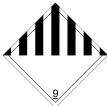
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· Label	9
· IMDG	
	
· Class	9 Miscellaneous dangerous substances and articles
· Label	9
· Packing group	
· DOT	Void
· ADR, IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	Yes
· Special marking (ADR):	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· Special precautions for user	Warning: Miscellaneous dangerous substances and articles
· Hazard identification number (Kemler code):	90
· EMS Number:	F-A,S-A
· Stowage Category	A
· Stowage Code	SW2 Clear of living quarters.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 60 On cargo aircraft only: 220 L
· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	US DOT: Non-Bulk: Not regulated All OTHERS UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. 9, III

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

EPA /FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency (EPA) and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide

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chemicals.

- **Marketing authorization number:**

- **SARA Title III**

- **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

- **TSCA (Toxic Substances Control Act):**

None of the ingredients are listed.

- **Hazardous Air Pollutants**

None of the ingredients are listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

- **Carcinogenicity categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

- **TLV (Threshold Limit Value)**

None of the ingredients are listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**

Not applicable

- **Signal word**

(US EPA) DANGER

- **Hazard-determining components of labeling:**

Quizalofop-p-ethyl

- **Hazard statements**

DANGER! Causes irreversible eye damage.

Harmful if swallowed, inhaled, or absorbed through the skin.

Avoid contact with skin, eyes, or clothing.

Avoid breathing spray mist.

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- H302+H332 Harmful if swallowed or if inhaled.
 H318 Causes serious eye damage.
 H351 Suspected of causing cancer.
 H360 May damage fertility or the unborn child.
 H304 May be fatal if swallowed and enters airways.
 H401 Toxic to aquatic life.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

DANGER! Causes irreversible eye damage. Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing vapors or spray mist.

- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P310 If swallowed: Immediately call a poison center/doctor.
 P330 Rinse mouth.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Systems Design and Control

· **Contact:** sds@gowanco.com

· **Date of preparation / last revision** 10/06/2022

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Carcinogenicity 2: Carcinogenicity – Category 2

Toxic to Reproduction 1B: Reproductive toxicity – Category 1B

Aspiration Hazard 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

· **Sources** TARGA® is a registered trademark of Nissan Chemical Industries Ltd.