



# SAFETY DATA SHEET

## Quizalofop-p-ethyl 100 EC

Revision Date 30-Apr-2019

Version 2

Product No LSMH00040-E

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### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### Product identifier

## Quizalofop-p-ethyl 100 EC

Pure substance/mixture

Mixture

#### Relevant identified uses of the substance or mixture and uses advised against

Recommended Use

Herbicide

Uses advised against

No information available

#### Details of the supplier of the safety data sheet

Supplier Address

ADAMA Agan Ltd  
P.O.B. 262  
ASHDOD Israel

For further information, please contact

Email address

SDS@ADAMA.COM

Emergency Telephone

Emergency Telephone

+972-03-6106666 Subscription no. 36789 (ADAMA Makhteshim Ltd.)

### Section 2: HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

|  |                     |
|--|---------------------|
| Aspiration toxicity                                | Category 1 - (H304) |
| Acute toxicity - Dermal                            | Category 5 - (H313) |
| Skin corrosion/irritation                          | Category 2 - (H315) |
| Serious eye damage/eye irritation                  | Category 1 - (H318) |
| Specific target organ toxicity (single exposure)   | Category 3 - (H335) |
| Specific target organ toxicity (repeated exposure) | Category 2 - (H373) |
| Acute aquatic toxicity                             | Category 2 - (H401) |
| Chronic aquatic toxicity                           | Category 2 - (H411) |
| Flammable liquids                                  | Category 3 - (H226) |

#### Label Elements

**Hazard pictograms**



**Signal word**

Danger

**Hazard Statements**

H304 - May be fatal if swallowed and enters airways  
 H313 - May be harmful in contact with skin  
 H315 - Causes skin irritation  
 H318 - Causes serious eye damage  
 H335 - May cause respiratory irritation  
 H373 - May cause damage to organs through prolonged or repeated exposure  
 H411 - Toxic to aquatic life with long lasting effects  
 H226 - Flammable liquid and vapor

**Precautionary Statements**

P102 - Keep out of reach of children  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P243 - Take precautionary measures against static discharge  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P302 + P352 - IF ON SKIN: Wash with plenty of water.  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P331 - Do NOT induce vomiting  
 P501 - Dispose of contents/ container to an approved waste disposal plant

**Other Hazards**

No information available

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

| Chemical Name  | Weight-% | CAS No      | EC No     | GHS Classification   | M-Factor    |
|--|----------|-------------|-----------|--|-------------|
| Quizalofop-p-ethyl                                       | 9-12     | 100646-51-3 |           | Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410)   | M=10<br>M=1 |
| Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt | 7-11     | N/A         | 932-231-6 | Skin Irrit. 2 (H315)<br>Eye Dam. 1 (H318)<br>Aquatic Chronic 3 (H412)  |             |
| 2-Ethylhexanol   | 7-11     | 104-76-7    | 203-234-3 | Acute Tox. 4 (H332)<br>Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319)<br>STOT SE 3 (H335)   |             |
| Xylene   | 10-14    | 1330-20-7   | 215-535-7 | Flam. Liq. 3 (H226)<br>Acute Tox. 4 (H312)<br>Skin Irrit. 2 (H315)<br>Acute Tox. 4 (H332)<br>Eye Irrit. 2 (H319)<br>Asp. Tox. 1 (H304)<br>STOT SE 3 (H335)<br>STOT RE 2 (H373) |             |

## Section 4: FIRST AID MEASURES

### First aid measures

|   |  |
|---|--|
| <b>General advice</b>                     | If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.  |
| <b>Inhalation</b>                         | Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician. Artificial respiration and/or oxygen may be necessary. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician. |
| <b>Skin Contact</b>                       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Immediate medical attention is not required.  |
| <b>Eye contact</b>                        | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.  |
| <b>Ingestion</b>                          | Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.   |
| <b>Self-protection of the first aider</b> | Use personal protective equipment as required.   |

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

**Symptoms** None known.

### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

## Section 5: FIRE-FIGHTING MEASURES

### Extinguishing media

#### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### **Unsuitable Extinguishing Media**

No information available.

### Special hazards arising from the substance or mixture

No specific hazard known.

### Advice for firefighters

In the event of fire, wear self-contained breathing apparatus  
In the event of fire and/or explosion do not breathe fumes.

## Section 6: ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions**

Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**For emergency responders**

Use personal protection recommended in Section 8.

**Environmental precautions**

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

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

**Methods for cleaning up**

Take up mechanically, placing in appropriate containers for disposal.

**Reference to other sections**

**Other Information**

See also section 8,13

**Section 7: HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling**

Use personal protective equipment as required. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation.

**General Hygiene Considerations**

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

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

**Storage Conditions**

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

**Specific end use(s)**

**Risk Management Methods (RMM)**

The information required is contained in this Material Safety Data Sheet.

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**National occupational exposure limits**

| Chemical Name              | European Union  | United Kingdom  | France  | Spain   | Germany   |
|----------------------------|---|---|---|---|---|
| 2-Ethylhexanol<br>104-76-7 |   |   |   |   | TWA: 10 ppm<br>TWA: 54 mg/m <sup>3</sup><br>Ceiling / Peak: 10 ppm<br>Ceiling / Peak: 54 mg/m <sup>3</sup><br>TWA: 20 ppm<br>TWA: 110 mg/m <sup>3</sup> |
| Xylene<br>1330-20-7        | S*<br>TWA 50 ppm<br>TWA 221 mg/m <sup>3</sup><br>STEL 100 ppm | STEL: 100 ppm<br>STEL: 441 mg/m <sup>3</sup><br>TWA: 50 ppm<br>TWA: 220 mg/m <sup>3</sup> | TWA: 50 ppm<br>TWA: 221 mg/m <sup>3</sup><br>TWA: 1000 mg/m <sup>3</sup><br>STEL: 100 ppm | S*<br>STEL: 100 ppm<br>STEL: 442 mg/m <sup>3</sup><br>TWA: 50 ppm | TWA: 100 ppm<br>TWA: 440 mg/m <sup>3</sup><br>Ceiling / Peak: 200 ppm   |

|                            |   |  |   |  |   |
|----------------------------|---|--|---|--|---|
|                            | STEL 442 mg/m <sup>3</sup>  | Skin   | STEL: 442 mg/m <sup>3</sup><br>STEL: 1500 mg/m <sup>3</sup>       | TWA: 221 mg/m <sup>3</sup>   | Ceiling / Peak: 880 mg/m <sup>3</sup><br>Skin   |
| <b>Chemical Name</b>       | <b>Italy</b>  | <b>Portugal</b>  | <b>Netherlands</b>  | <b>Finland</b>   | <b>Denmark</b>  |
| Xylene<br>1330-20-7        | TWA: 50 ppm<br>TWA: 221 mg/m <sup>3</sup><br>STEL: 100 ppm<br>STEL: 442 mg/m <sup>3</sup><br>Skin | STEL: 150 ppm<br>TWA: 100 ppm  | Skin<br>STEL: 442 mg/m <sup>3</sup><br>TWA: 210 mg/m <sup>3</sup> | TWA: 50 ppm<br>TWA: 220 mg/m <sup>3</sup><br>STEL: 100 ppm<br>STEL: 440 mg/m <sup>3</sup><br>Skin  | TWA: 25 ppm<br>TWA: 109 mg/m <sup>3</sup><br>Skin   |
| <b>Chemical Name</b>       | <b>Austria</b>  | <b>Switzerland</b>   | <b>Poland</b>   | <b>Norway</b>  | <b>Ireland</b>  |
| 2-Ethylhexanol<br>104-76-7 | Skin<br>STEL 100 ppm<br>STEL 540 mg/m <sup>3</sup><br>TWA: 50 ppm<br>TWA: 270 mg/m <sup>3</sup>   | STEL: 20 ppm<br>STEL: 110 mg/m <sup>3</sup><br>TWA: 20 ppm<br>TWA: 110 mg/m <sup>3</sup>           | STEL: 320 mg/m <sup>3</sup><br>TWA: 160 mg/m <sup>3</sup>         |  |   |
| Xylene<br>1330-20-7        | Skin<br>STEL 100 ppm<br>STEL 442 mg/m <sup>3</sup><br>TWA: 50 ppm<br>TWA: 221 mg/m <sup>3</sup>   | Skin<br>STEL: 200 ppm<br>STEL: 870 mg/m <sup>3</sup><br>TWA: 100 ppm<br>TWA: 435 mg/m <sup>3</sup> | TWA: 100 mg/m <sup>3</sup><br>Skin                                | TWA: 25 ppm<br>TWA: 108 mg/m <sup>3</sup><br>Skin<br>STEL: 37.5 ppm<br>STEL: 135 mg/m <sup>3</sup> | TWA: 50 ppm<br>TWA: 221 mg/m <sup>3</sup><br>STEL: 100 ppm<br>STEL: 442 mg/m <sup>3</sup><br>Skin |

**Exposure controls**

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

**Eye/face protection** Tight sealing safety goggles.

**Hand Protection** Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).

**Body Protection** Suitable protective clothing, Apron, Gloves made of plastic or rubber.

**Respiratory protection** Use only with adequate ventilation.

**General Hygiene Considerations** When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

**Environmental exposure controls** Do not allow into any sewer, on the ground or into any body of water.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Physical and Chemical Properties**

| <u>Property</u>                              | <u>Values</u>                | <u>Method</u> | <u>Remarks</u> |
|--|------------------------------|---------------|----------------|
| <b>Appearance</b>                            |                              |               |                |
| Physical state                               | : Liquid                     |               |                |
| Color  | : Amber                      |               |                |
| Odor   | : Aromatic                   |               |                |
| Odor threshold                               | : No data available          |               |                |
| pH   | : 5 - 7                      |               |                |
| Melting point/freezing point °C              | : ----                       |               | Not Applicable |
| Boiling point/boiling range °C               | : ----                       |               | Not Applicable |
| Flash point °C                               | : 25                         |               |                |
| Evaporation rate                             | : Not Applicable             |               |                |
| Flammability (solid, gas)                    | : Not applicable for liquids |               |                |
| Upper/lower flammability or explosive limits | : No data available          |               |                |

|   |                     |                                     |
|---|---------------------|-------------------------------------|
| Vapor pressure kPa                              | : ----              | No data available                   |
| Vapor density                                   | : No data available |                                     |
| Relative density                                | : 0.95 - 0.97       | 20° C                               |
| Solubility(ies) mg/l                            | : ----              | No data available                   |
| Partition Coefficient (n-octanol/water) Log Pow | :                   | See Section 12 for more information |
| Autoignition temperature °C                     | : ----              | No data available                   |
| Decomposition temperature °C                    | : ----              | No data available                   |
| Kinematic viscosity mm <sup>2</sup> /s 40 °C    | : ----              | No data available                   |
| Explosive properties                            | : Not an explosive  |                                     |
| Oxidizing properties                            | : Not oxidizing     |                                     |
| <b>Other Information</b>                        |                     |                                     |
| Bulk density g/ml                               | : ----              | Not Applicable                      |
| Surface tension mN/m                            | : ----              | No data available                   |

## Section 10: STABILITY AND REACTIVITY

### Reactivity

Not available.

### Chemical stability

Stable under normal conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

Heat, flames and sparks.

### Incompatible Materials

No information available

### Hazardous Decomposition Products

None under normal use conditions.

## Section 11: TOXICOLOGY INFORMATION

### Information on toxicological effects

#### Acute toxicity

|                                   | <u>Values</u>              | <u>Species</u> | <u>Method</u> | <u>Remarks</u> |
|-----------------------------------|----------------------------|----------------|---------------|----------------|
| Oral LD50 mg/kg                   | : > 5000                   | Rat            |               |                |
| Dermal LD50 mg/kg                 | : 4000                     | Rat            |               |                |
| Inhalation LC50 mg/l/4h           | : > 5.0                    | Rat            |               |                |
| Skin corrosion/irritation         | : Moderate skin irritation |                |               |                |
| Serious eye damage/eye irritation | : Slight                   |                |               |                |
| Respiratory/skin sensitization    | : Not a skin sensitizer    |                |               |                |

#### Chronic toxicity

#### Germ cell mutagenicity

##### Chemical Name

Quizalofop-p-ethyl : Not classified

**Carcinogenicity**  
**Chemical Name**  
 Quizalofop-p-ethyl : Not Carcinogenic

**Reproductive toxicity**  
**Chemical Name**  
 Quizalofop-p-ethyl : Not toxic for the reproductive system

**STOT - single exposure**  
**Chemical Name**  
 Quizalofop-p-ethyl : No data available

**STOT - repeated exposure**  
**Chemical Name**  
 Quizalofop-p-ethyl : No data available

**Aspiration hazard**  
**Chemical Name**  
 Quizalofop-p-ethyl : No data available

**Section 12: ECOLOGICAL INFORMATION**

**Toxicity**

**Aquatic toxicity**

|                             | <u>Values</u> | <u>Species</u> | <u>Method</u> | <u>Remarks</u>    |
|-----------------------------|---------------|----------------|---------------|-------------------|
| <b>Acute toxicity</b>       |               |                |               |                   |
| Fish 96-hour LC50 mg/l      | : ----        |                |               | No data available |
| Crustacea 48-hour EC50 mg/l | : ----        |                |               | No data available |
| Algae 72-hour EC50 mg/l     | : ----        |                |               | No data available |
| Other plants EC50 mg/l      | : ----        |                |               | No data available |

|                                 | <u>Values</u>       | <u>Species</u> | <u>Method</u> | <u>Remarks</u> |
|---------------------------------|---------------------|----------------|---------------|----------------|
| <b>Chronic aquatic toxicity</b> |                     |                |               |                |
| Fish NOEC mg/l                  | : No data available |                |               |                |
| Crustacea NOEC mg/l             | : No data available |                |               |                |
| Algae NOEC mg/l                 | : No data available |                |               |                |
| Other plants NOEC mg/l          | : No data available |                |               |                |

**Terrestrial Toxicity**

**Birds Oral LD50 mg/kg**  
**Chemical Name**  
 Quizalofop-p-ethyl : > 2000

**Bees Oral LD50 µg/bee**  
**Chemical Name**  
 Quizalofop-p-ethyl : > 94  
 OECD 213, OECD 214

**Persistence and degradability**

|                            | <u>Values</u> | <u>Method</u> | <u>Remarks</u> |
|----------------------------|---------------|---------------|----------------|
| <b>Abiotic Degradation</b> |               |               |                |
| <b>Water DT50 days</b>     |               |               |                |
| <b>Chemical Name</b>       |               |               |                |
| Quizalofop-p-ethyl         | : < 1         | OECD 308      |                |

|                       |         |          |  |
|-----------------------|---------|----------|--|
| <b>Soil DT50 days</b> |         |          |  |
| <b>Chemical Name</b>  |         |          |  |
| Quizalofop-p-ethyl    | : < 0.5 | OECD 307 |  |

**Biodegradation**

**Chemical Name**  
 Quizalofop-p-ethyl : No data available

**Bioaccumulative potential**

| <b>Partition Coefficient (n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow</b> | <b>Values</b> | <b>Method</b> | <b>Remarks</b> |
|--|---------------|---------------|----------------|
| <b>Chemical Name</b><br>Quizalofop-p-ethyl   | : 2.8         | OECD 107      |                |

**Bioconcentration factor (BCF)**

**Chemical Name**  
 Quizalofop-p-ethyl : Low

**Mobility in soil**

| <b>Adsorption/Desorption</b>               | <b>Values</b> | <b>Method</b> | <b>Remarks</b>    |
|--|---------------|---------------|-------------------|
| <b>Chemical Name</b><br>Quizalofop-p-ethyl | : ----        |               | No data available |

**Results of PBT and vPvB assessment**

The components in this formulation do not meet the criteria for classification as PBT or vPvB

**Other adverse effects**

No information available.

**Section 13: DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

|  |   |
|--|---|
| <b>Waste from residues/unused products</b> | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| <b>Contaminated packaging</b>              | Improper disposal or reuse of this container may be dangerous and illegal.                          |
| <b>Other Information</b>                   | Waste codes should be assigned by the user based on the application for which the product was used. |

**Section 14: TRANSPORTATION INFORMATION**

**IMDG/IMO**

**UN/ID No \*** 1993  
**Proper shipping name** FLAMMABLE LIQUID, N.O.S. ( Xylene )  
**Hazard Class** 3  
**Packing Group** III  
**Marine pollutant** Yes This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO

**Special precautions for user**

**RID/ADR**

**UN/ID No \*** 1993  
**Proper shipping name** FLAMMABLE LIQUID, N.O.S. ( Xylene )  
**Hazard Class** 3  
**Packing Group** III  
**Environmental hazard** Yes  
**Special precautions for user**



**ICAO/IATA**

|  |                                     |
|--|-------------------------------------|
| UN/ID No *   | 1993                                |
| Proper shipping name   | FLAMMABLE LIQUID, N.O.S. ( Xylene ) |
| Hazard Class   | 3                                   |
| Packing Group  | III                                 |
| Environmental hazard   | Yes                                 |
| Special precautions for user   |                                     |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not Applicable                      |



\* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids.

**Section 15: REGULATORY INFORMATION**

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

**Section 16: OTHER INFORMATION**

**Revision Note** Changes made to the last version are labeled with this sign \*\*\*.

**List of Acronyms**

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road  
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
CAS Number - Chemical Abstracts Service number  
EC Number - EINECS and ELINCS Number  
EINECS - European Inventory of Existing Commercial Substances  
ELINCS - European List of notified Chemical Substances  
IATA - International Air Transport Association  
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air  
IMDG - International Maritime Dangerous Goods  
LC50 - Lethal Concentration to 50 % of a test population  
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)  
OECD - Organization for Economic Co-operation and Development  
PBT - Persistent, Bioaccumulative and Toxic substance  
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail  
STOT - Specific Target Organ Toxicity  
vPvB - Very Persistent and Very Bioaccumulative

**Disclaimer**

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet