

1. IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

1.1 Product identifier

Trade name and/or other names and company product codes by which the mixture can be identified

Barracuda, Clayton Tassel, Cobber 100 SC, Cuter, Faktor, Fraxion, Juzan 100 SC, Maisot, Maisot 100 SC, Maystar, Mesocore 100 SC, Meso Neutral PL, Mesotrione 100 SC, Raikiri, Raikiri 100 SC, AE-036-1, ALB036, MES 100 SC, MST100FLO, MST100FLOTKI

Unique Formula Identifier (UFI)

Not assigned

1.2 Relevant identified uses of the mixture and uses advised against

1.2.1 Relevant identified uses

Agricultural herbicide for professional use only.

1.2.2 Uses advised against

Do not use for any other purpose.

1.3 Details of the supplier of the safety data sheet

Albaugh Europe Sàrl
World Trade Center Lausanne
Avenue Gratta-Paille 2
1018 Lausanne
Switzerland

Telephone: +41 21 799 9130
Fax: +41 21 799 9139
Email: sds@albaugh.eu
Web: www.albaugh.eu

1.4 Emergency telephone number

For advice on medical emergencies, fires or major spills: +44 (0) 1235 239 670

Available: 24 h
Time Zone: GMT
Language(s) of phone service: All EU languages

National Emergency Telephone Numbers

Country/provider

| | |
|--|--|
| Austria / Vergiftungsinformationszentrale | 01 406 4343 / 24h (CET) / German |
| Belgium / Centre Antipoisons | 070/245.245 / 24h (CET) / French and Dutch |
| Croatia / Poison Control Centre | 385 1 2348 342 / 24h (CET) / Croatian |
| France / Centre Antipoison | 0145 42 59 59 / 24h (CET) / French |
| Germany / National Poisons Information Service | 06131 19240 / 24h (CET) / German |
| Greece / Poison Information Centre (PIC) | 2107793777 / 24h (CET) / Greek |
| Hungary / National Institute of chemical Safety (HTIS) | 80 20 11 99 / 24h (CET) / Hungarian |
| Italy / National Centre for Chemical Substances (ISS) | 06 305 43 43 / 24h (CET) / Italian |
| Portugal / Centro de Informação Antivenenos (CIAV) | 80825143 / 24h (CET) / Portuguese |
| Romania / INSP | 021.318.36.06 / 24h (CET) / Romanian |
| Slovenia / Poison Control Centre Ljubljana | +386 41 635 500 / 24h (CET) / Slovenian |
| Spain / Toxicology Information Service (TIS) | 91 562 0420 / 24h (CET) / Spanish |
| UK / UK National Poisons Information Service | 0121 507 4123 / 24h (GMT) / English |

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) no. 1272/2008 [CLP/GHS]

| Signal word | Hazard class and category | Pictograms | Hazard statement |
|-------------|---------------------------|------------|---|
| Warning | Skin. Sens. 1 | GHS07 | H317 May cause an allergic skin reaction |
| Danger | Eye Dam. 1 | GHS05 | H318 Causes serious eye damage |
| Warning | Repr. 2 | GHS08 | H361d Suspected of damaging the unborn child |
| Warning | Aquatic Acute 1 | GHS09 | H400 Very toxic to aquatic life |
| | Aquatic Chronic 1 | | H410 Very toxic to aquatic life with long lasting effects |

Additional information

For abbreviations, refer to Section 16.

2.2 Label elements

Labelling according to Regulation (EC) no. 1272/2008

Hazard pictograms



GHS05



GHS07



GHS08



GHS09

Signal Word

Danger

Hazard Statements

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H361d: Suspected of damaging the unborn child.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements

General -

Prevention P201: Obtain special instructions before use.

P261: Avoid breathing mist/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response P302+P352: IF ON SKIN: Wash with plenty of soap and 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.

P310: Immediately call a POISON CENTER or doctor/physician.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P391: Collect spillage.

Storage -

Disposal P501: Dispose of contents/container as hazardous waste in accordance with national regulations.

Supplemental information:

EUH401: To avoid risks to human health and the environment, comply with the instructions for use.

2.3 Other hazards

This mixture does not meet the PBT criteria of REACH Regulation, Annex XIII.

This mixture does not meet the vPvB criteria of REACH Regulation, Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

Description of the mixture:

Mixture of Mesotrione and co-formulants.

| Chemical Name | CAS-No. | EC-No. | Index No. | Concentration (w/w) | CLP (Reg. 1272/2008) Classification | SCL/ M-Factor/ ATE |
|---|-------------|-----------|--------------|---------------------|---|---|
| Ethoxylated fatty alcohol | 78330-20-8 | 616-607-4 | - | 20 - 30 % | Acute Tox. 4, H302 Eye Dam. 1, H318 | - |
| Mesotrione | 104206-82-8 | 600-533-4 | 609-064-00-X | 9.4 % | Repr. 2, H361d STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 | - - M=10 (Acute) M=10 (Chronic) |
| n-octanol | 111-87-5 | 203-917-6 | - | 5 - 10 % | Eye Irrit. 2, H319 Aquatic Chronic 3, H412 | - |
| Ethoxylated polyarylphenol acid phosphate | 90093-37-1 | 618-446-5 | - | 0 - 5 % | Skin Irrit. 2, H315 Eye Irrit. 2, H319 | - |
| Phosphoric Acid 85 % | 7664-38-2 | 231-633-2 | 015-011-00-6 | 0 - 5 % | Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 | Skin Corr. 1B, H314: C ≥ 25 % Skin Irrit. 2, H315: 10 % ≤ C < 25 % Eye Irrit. 2, H319: 10 % ≤ C < 25 % |
| Other ingredients | - | - | - | to 100 % | Not classified | - |

Additional information

For full text of H-phrases, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General notes:

If symptoms occur after exposure to this product, seek medical attention immediately and show the product label or this SDS. Remove to fresh air and keep at rest. Do not allow smoking or eating. Take off all contaminated clothing and footwear. Avoid exposure to the product by any route in case of suspected or confirmed pregnancy.

Following inhalation:

Remove to fresh air and keep at rest in half-upright position. Seek medical attention immediately.

Following skin contact:

Remove all contaminated clothing. Wash skin with soap and rinse with plenty of water. Seek medical attention if irritation arises. Wash clothes before re-use.

Following eye contact:

Immediately rinse with water. Holding eyes open, continue rinsing for 15 minutes at least. Remove contact lenses as soon as possible. Seek medical attention immediately. The workplace must be equipped with an emergency eyewash.

Following ingestion:

If swallowed, DO NOT INDUCE VOMITING: Seek medical advice immediately and show the product label or this SDS. Remove any residues from mouth and rinse it with plenty of water. Never give anything by mouth to an unconscious person.

Self-protection of first aider

Personal protective equipment for first aid responders is recommended according to potential for exposure (refer to Section 8).

4.2 Most important symptoms and effects, both acute and delayed

The symptoms and the effects indicated in this section refer to an accidental exposure scenario.

Following inhalation:

Possible slight nasal irritation and discharge. No delayed effects expected.

Following skin contact:

Possible irritation and redness. May cause an allergic skin reaction following repeated contact.

Following eye contact:

Causes serious irritation and redness and potentially irreversible eye damage.

Following ingestion:

Possible mild gastrointestinal effects. No delayed effects expected.

4.3 Indication of immediate medical attention and special treatment needed

No need to provide any special means/medicinal products for immediate treatment at the workplace. Provide eyewash facilities when possible.

Notes for the doctor:

No specific antidote. The product is suspected of damaging the unborn child. Treat symptomatically (decontamination, vital functions). Call a Poison Centre immediately for treatment advice. In case of ingestion gastric lavage may be necessary (with proper laryngeal control). Before emptying the stomach, assess the potential danger arising from lung aspiration against the product toxicity. Report to Albaugh Europe Sàrl any unusual symptoms occurring after exposure by any route.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:

Carbon dioxide, water spray, alcohol-resistant foam, dry chemical for small fires, alcohol-resistant foam or water spray for large fires.

Unsuitable extinguishing media:

Solid water jet.

5.2 Special hazards arising from the mixture

Hazardous combustion products

Evolves toxic and corrosive fumes in fire including, but not limited to, various oxides: carbon oxides, nitrogen oxides, sulphur oxides and acid compounds like hydrogen cyanide.

5.3 Advice for fire-fighters

Clothing conforming to EN469 should be sufficient to deal with fires involving the mixture.

However, a Self-Contained Breathing Apparatus (SCBA) may be required if there is a potential for exposure to combustion fumes.

Additional information

Provide storage and work areas with suitable fire extinguishers.

Call the Fire Brigade at once to deal with all fires involving pesticides unless the fire is small and immediately controllable. Spray unopened containers with a mist spray to keep cool. If without risk, remove intact containers from exposure to fire. Contain fire-fighting water, bunding if necessary with sand or earth. Do not allow contamination of public drains or surface or ground waters. Dispose of fire debris and contaminated water according to all relevant national legislation.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

General: Avoid exposure to the product by any route in case of suspected or confirmed pregnancy.

Protective equipment: Wear prescribed personal protective equipment to prevent contact with eyes and skin. A Self-Contained Breathing Apparatus (SCBA) may be required if there is an elevated risk for exposure.

Emergency procedures: Remove immediately any contaminated clothing. Call the emergency services if the release is not immediately controllable. If the release is localised and immediately controllable, wear a Self-Contained Breathing Apparatus (SCBA) and try and control the release at its source.

6.1.2 For emergency responders

Clothing conforming to EN469.

6.2 Environmental precautions

The product is very toxic to aquatic life with long lasting effects. Use appropriate containment to avoid environmental contamination. Control the release at its source. Contain spills to prevent it from spreading, contaminating soil or entering sewage and drainage systems or any body of water. Inform the local water authorities if the release enters drains, surface or ground waters.

6.3 Methods and material for containment and cleaning up

For containment

Wear prescribed personal protective equipment to prevent contact with eyes and skin. A Self-Contained Breathing Apparatus (SCBA) may be required if there is an elevated risk for exposure. Clean up spills immediately and place in a compatible disposal container. Contain spill by diking with earth, sand or absorbent material and place into a compatible marked disposal container.

For cleaning up

The mixture is a liquid suspension concentrate. Scrub area with a hard water detergent. Soak up wash liquid with additional absorbent material and place into a compatible marked disposal container. Seal container and arrange for disposal.

Other information

Not Applicable

6.4 Reference to other sections

Refer to Section 8 for personal protective equipment and to Section 13 for disposal instructions.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Obtain special instructions before use. Avoid exposure to the product by any route in case of suspected or confirmed pregnancy. Do not handle until all safety precautions have been read and understood. Provide suitable ventilation in the areas where the product is stored and used. Contaminated work clothing should not be allowed out of the workplace. Avoid all contact by mouth, with eyes and skin. Wear personal protective equipment as specified in Section 8. When using, do not eat, drink or smoke. Remove contaminated clothing and protective equipment before meals and after work. Wash hands and exposed skin before meals and after work. Wash all protective clothing thoroughly after use, especially the insides of gloves. Provide eyewash facilities when possible.

7.2 Conditions for safe storage, including any incompatibilities

The mixture is stable under normal ambient conditions. Keep in original container, in a dry, cool and safe place. Store in a locked, suitable store. Keep away from any source of ignition. Keep out of the reach of children and unauthorised personnel. Keep away from food, drink and animal feeding stuffs.

7.3 Specific end use(s)

Product for professional use as directed by the product label, every other use is hazardous.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control Parameters

Occupational Exposure limit values

Occupational Exposure limit values have been set for the following components.

| Component CAS No. | Occupational Exposure Levels | | | | | Reference |
|--|------------------------------|--------------------|----------------------|----------------------|----------------|-----------|
| | 8h - TWA | | Short term | | Country | |
| | mg/m ³ | ppm | mg/m ³ | ppm | | |
| n-octanol 111-87-5 | 54 ⁽¹⁾ | 10 ⁽¹⁾ | 54 ⁽¹⁾⁽³⁾ | 10 ⁽¹⁾⁽³⁾ | Germany (AGS) | Gestis |
| | 54 ⁽¹⁾ | 10 ⁽¹⁾ | 54 ⁽¹⁾⁽³⁾ | 10 ⁽¹⁾⁽³⁾ | Germany (DFG) | |
| | 10 | - | - | - | Latvia | |
| | 150 | 28 | 250 ⁽¹⁾ | 47 ⁽¹⁾ | Romania | |
| | 106 | 20 | 106 ⁽²⁾ | 20 ⁽²⁾ | Switzerland | |
| Phosphoric acid 7664-38-2 | 1 | - | 2 | - | Austria | Gestis |
| | 1 | - | 2 ⁽¹⁾ | - | Belgium | |
| | 1 | - | 2 | - | Denmark | |
| | 1 | - | 2 ⁽¹⁾ | - | European Union | |
| | 1 | - | 2 ⁽¹⁾ | - | Finland | |
| | 1 ⁽¹⁾ | 0.2 ⁽¹⁾ | 2 ⁽¹⁾ | 0.5 ⁽¹⁾ | France | |
| | 2 ⁽²⁾ | - | 4 ⁽²⁾⁽³⁾ | - | Germany (AGS) | |
| | 2 ⁽²⁾ | - | 4 ⁽²⁾⁽³⁾ | - | Germany (DFG) | |
| | 1 | - | 2 | - | Hungary | |
| | 1 | - | 2 ⁽¹⁾ | - | Ireland | |
| | 1 | - | 2 ⁽¹⁾ | - | Italy | |
| | 1 | - | 2 ⁽¹⁾ | - | Latvia | |
| | 1 | - | 2 | - | Netherlands | |
| | 1 | - | - | - | Norway | |
| | 1 | - | 2 | - | Poland | |
| | 1 | - | 2 ⁽¹⁾ | - | Romania | |
| | 1 | - | 2 | - | Spain | |
| | 1 | - | 2 ⁽¹⁾ | - | Sweden | |
| | 2 ⁽¹⁾ | - | 4 ⁽¹⁾⁽²⁾ | - | Switzerland | |
| 1 | - | 2 | - | United Kingdom | | |
| Propylene glycol (total vapour and particulates) 57-55-6 | 470 | 150 | - | - | Ireland | Gestis |
| | 79 | 25 | - | - | Norway | |
| | 474 | 150 | - | - | United Kingdom | |
| Propylene glycol (particulates) 57-55-6 | 10 | - | - | - | Ireland | Gestis |
| | 7 | - | - | - | Latvia | |
| | 100 | - | - | - | Poland | |
| | 10 | - | - | - | United Kingdom | |

Belgium (1) 15 minutes average value
 European Union (1) 15 minutes average value
 Finland (1) 15 minutes average value
 France (1) indicative statutory limit values
 Germany (AGS) (1) inhalable fraction and vapour (2) inhalable aerosol (3) 15 minutes average value
 Germany (DFG) (1) inhalable fraction and vapour (2) inhalable fraction (3) 15 minutes average value
 Ireland (1) 15 minutes reference period
 Italy (1) 15 minutes average value
 Romania (1) 15 minutes average value
 Sweden (1) 15 minutes average value
 Switzerland (1) inhalable fraction (2) 15 minutes average value

Information on monitoring procedures

None available

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Engineering controls and appropriate work processes must be used to eliminate or reduce worker and environmental exposure in the areas where the product is handled, transported, loaded, unloaded, stored and used. These measures must be adequate for the extent of the actual risk. Provide adequate local exhaust ventilation. Use specialized transfer systems if available.

8.2.2 Personal protection equipment

Eye and face protection:

Wear suitable eye protection (EN 166).

Skin protection:

Hand protection: Wear suitable protective gloves against chemicals (EN 374 part 1, 2, 3). Nitrile rubber min. 0.5mm thick and 300mm long gloves are the ones proven to be the most suitable according to tests on pesticide products.

Wash the gloves thoroughly after each use, especially the insides. Replace gloves if damaged and before exceeding the breakthrough time.

Body protection: Avoid contact with skin. Wear suitable coveralls (ISO 13982-1, Type 5, EN 13034, Type 6).

Other skin protection: None specified.

Respiratory protection:

No special requirement when used as recommended. If a risk assessment shows that engineering controls do not provide adequate respiratory protection to exposure to spray particles, wear particle filtering half mask (EN 149) or half mask connected to particle filter (EN 140 + 143).

Thermal hazards:

Not required under appropriate product use and storage.

8.2.3 Environmental exposure controls

Implement all applicable local and community environmental protection legislation. Refer to Section 15. Use appropriate containment to avoid environmental contamination. Do not empty into drains. Do not contaminate water with the product or used container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads. Refer to Section 12 and 13.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

All the data contained in this section are derived from actual test data on the mixture unless otherwise stated.

| | |
|--|--|
| a) <i>Physical state:</i> | Liquid |
| b) <i>Colour:</i> | Dark cream |
| c) <i>Odour:</i> | Similar to octanol |
| <i>Odour threshold:</i> | Not determined |
| d) <i>Melting point/freezing point:</i> | Not applicable – the mixture is a liquid at ambient temperature and must be protected from frost |
| e) <i>Initial boiling point and boiling range:</i> | > 100 °C |
| f) <i>Flammability (gas, liquid, solid):</i> | Not flammable |
| g) <i>Upper/lower explosion limits:</i> | Not explosive |
| h) <i>Flash point:</i> | > 100 °C (EEC A9) |
| i) <i>Auto-ignition temperature:</i> | > 400 °C (EEC A15) |
| <i>Minimum Ignition Temperature:</i> | Not available |
| <i>Minimum Ignition Energy:</i> | Not available |
| j) <i>Decomposition temperature:</i> | Not available |
| k) <i>pH:</i> | 2.45 undiluted formulation |
| | 3.1 (1% dilution in water, CIPAC MT 75.3) |
| l) <i>Kinematic viscosity</i> | 16544 mm ² /s (20°C, 0.10 s ⁻¹ , OECD 114) |
| | 22011 mm ² /s (40°C, 0.10 s ⁻¹ , OECD 114) |
| m) <i>Solubility(ies)</i> | |
| <i>Solubility (water):</i> | Completely miscible in water |
| n) <i>Partition coefficient: n-octanol/water:</i> | Not available |

- o) *Vapour pressure:* Not applicable
 p) *Density/relative density* ca. 1.07 g/cm³ (20°C, EEC A3)
 q) *Relative vapour density* Not determined
 r) *Particle characteristics* Not applicable - the product is a liquid.

9.2 Other information

9.2.1 Information with regard to physical hazard classes

None

9.2.2 Other safety characteristics

None

10. STABILITY AND REACTIVITY

10.1 Reactivity

Non-reactive when stored in original container under normal conditions of storage and use.

10.2 Chemical stability

Stable when stored in original container under normal conditions of storage and use.

10.3 Possibility of hazardous reactions

No hazardous reactions when stored in original container under normal conditions of storage and use. Reacts with strong bases and strong oxidising substances.

10.4 Conditions to avoid

Do not store in proximity of sources of ignition and direct sunlight.

10.5 Incompatible materials

Avoid contact with strong bases and strong oxidising substances.

10.6 Hazardous decomposition products

During decomposition evolves toxic fumes including hydrogen fluoride, nitrogen oxides, sulphur oxides and hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.2 Mixtures

All the data contained in this section are derived from actual test data on the mixture unless otherwise stated.

- a) **Acute toxicity:** Not classified for acute toxicity under Regulation (EC) 1272/2008.

| | Mixture | Relevant components | |
|---|----------------------|---------------------------|--|
| | | Ethoxylated fatty alcohol | Phosphoric Acid |
| LD₅₀ oral: | >2000 mg/kg bw (rat) | 1400 mg/kg bw (rat) | 500-2000 mg/kg bw (calculation method) |
| LD₅₀ dermal: | >2000 mg/kg bw (rat) | - | - |
| LC₅₀ inhalation (4h): | >5 mg/L (rat) | - | - |

- b) **Skin corrosion/irritation:** Not classified as skin irritant under Regulation (EC) 1272/2008 (rabbit, OECD 404).

| Relevant components | |
|--|--|
| Ethoxylated polyarylphenol acid phosphate | Phosphoric Acid |
| Skin Irrit. 2, H315 Causes skin irritation | Skin Corr. 1B, H314 Causes severe skin burns and eye damage. |

- c) **Serious eye damage/irritation:** Classified as Eye Dam. 1, H318 Causes serious eye damage, under Regulation (EC) 1272/2008 (rabbit, OECD 405).

| Relevant components | | | |
|--|---|---|---|
| Ethoxylated fatty alcohol | n-octanol | Ethoxylated polyarylphenol acid phosphate | Phosphoric Acid |
| Eye Dam. 1, H318 Causes serious eye damage | Eye Irrit. 2, H319 Causes serious eye irritation. | Eye Irrit. 2, H319 Causes serious eye irritation. | Eye Dam. 1, H318 Causes serious eye damage Skin Corr. 1B, H314 Causes severe skin burns and eye damage |

- d) Respiratory or skin sensitization:** Classified as Skin Sens. 1, H317 May cause an allergic skin reaction, under Regulation (EC) 1272/2008 (mouse, OECD 429).
- e) Germ cell mutagenicity:** Not classified as mutagenic on the basis of mixture component information.
- f) Carcinogenicity:** Not classified as carcinogenic on the basis of mixture component information.
- g) Reproductive toxicity:** Classified as Repro. 2, H361d Suspected of damaging the unborn child, under Regulation (EC) 1272/2008 on the basis of mixture component information.

| Relevant components | |
|--|--|
| Mesotrione | |
| Repro. 2, H361d Suspected of damaging the unborn child | |

- h) STOT – single exposure:** Not classified as hazardous for single dose toxicity on the basis of mixture component information.
- i) STOT – repeated exposure:** Not classified as hazardous for repeated dose toxicity on the basis of mixture component information respectively amount present in product.

| Relevant components | |
|---|--|
| Mesotrione | |
| STOT RE 2, H373 May cause damage to organs through prolonged or repeated exposure | |

- j) Aspiration hazard:** Not classified as hazardous by aspiration on the basis of mixture component information.

Likely routes of exposure, symptoms related to the physical, chemical and toxicological characteristics, immediate and delayed effects as well as chronic effects from short- and long-term exposure and interactive effects:

Inhalation: There is a risk of exposure by inhalation.
Immediate acute and/or chronic effects from short- and/or long-term exposure:
Possible slight nasal irritation and discharge.

Delayed acute and/or chronic effects from short- and/or long-term exposure:
No evidence of delayed effects after short- and long-term exposure.

Eye contact: There is a risk of exposure by eye contact.
Immediate acute and/or chronic effects from short- and/or long-term exposure:
Causes serious and potentially irreversible eye damage.

Delayed acute and/or chronic effects from short- and/or long-term exposure:
Causes serious and potentially irreversible eye damage.

Skin contact: There is a risk of exposure by skin contact.
Immediate acute and/or chronic effects from short- and/or long-term exposure:
Possible irritation and redness.

Delayed acute and/or chronic effects from short- and/or long-term exposure:
May cause an allergic skin reaction following repeated exposure.

Ingestion: There is a very low risk of accidental exposure by ingestion.
Immediate acute and/or chronic effects from short- and/or long-term exposure:
Possible mild gastrointestinal effects.

Delayed acute and/or chronic effects from short- and/or long-term exposure:
No evidence of delayed effects after short- and long-term exposure.

11.2 Information on other hazards

Endocrine disrupting properties:
Other information:

None
None

12. ECOLOGICAL INFORMATION

All the information and data contained in this section are derived from actual test data on the mixture unless otherwise stated.

12.1 Toxicity

Acute Toxicity

| Organism | Mixture | Relevant components | |
|----------------------------------|---|---|--|
| | | Mesotrione | n-octanol |
| Fish: | <i>Oncorhynchus mykiss</i> 92.9 mg/L, LC ₅₀ (96h) | <i>Oncorhynchus mykiss</i> >120 mg/L, LC ₅₀ (96h) | <i>Oncorhynchus mykiss</i> 13.3 mg/L, LC ₅₀ (96h) |
| Crustacea: | <i>Daphnia magna</i> 57.9 mg/L, EC ₅₀ (48h) | <i>Daphnia magna</i> >622 mg/L, EC ₅₀ (48h) | <i>Daphnia magna</i> 20 mg/L, EC ₅₀ (48h) |
| Algae/Aquatic plants: | <i>Pseudokirchneriella subcapitata</i> 101 mg/L, ErC ₅₀ (72h) <i>Lemna gibba</i> 0.336 mg/L, ErC ₅₀ (7d) | <i>Pseudokirchneriella subcapitata</i> 13 mg/L, ErC ₅₀ (120h) | <i>Pseudokirchneriella subcapitata</i> 14 mg/L, ErC ₅₀ (48h) |
| Birds: | - | <i>Colinus virginianus</i> 2000 mg/kg bw | - |
| Honey bees: (oral) | <i>Apis mellifera</i> >163.3 ug a.s./bee, LD ₅₀ (48h) | <i>Apis mellifera</i> >11 ug a.s./bee, LD ₅₀ | - |
| Honey bees: (contact) | <i>Apis mellifera</i> >72.7 ug a.s./bee, LD ₅₀ (48h) | <i>Apis mellifera</i> >100 ug a.s./bee, LD ₅₀ | - |

Chronic Toxicity

| Organism | Mixture | Relevant components | |
|-------------------------------|---------|---|---|
| | | Mesotrione | n-octanol |
| Fish: | - | <i>Pimephales promelas</i> 12.5 mg/L, NOEC (36d) | <i>Pimephales promelas</i> 1.5 mg/L, NOEC (7d) |
| Crustacea: | - | <i>Daphnia magna</i> 180 mg/L, NOEC (21d) | <i>Daphnia magna</i> 1.0 mg/L, NOEC (21d) |
| Algae/ Aquatic plants: | - | - | - |
| Sediment dwellers: | - | - | - |
| Birds: | - | <i>Anas platyrhynchos</i> 120 mg/kg diet, NOEL | - |

12.2 Persistence and degradability: Moderately to non-persistent, not readily biodegradable (based on active substance)

| | Relevant components | |
|--|--------------------------------|---|
| | Mesotrione | n-octanol |
| Abiotic degradation: | pH 5, 7 and 9 stable; >30 days | Lacks any of the functional groups that are susceptible to hydrolysis under relevant conditions. |
| Physical- and photo-chemical elimination: | DT ₅₀ >50 days | Half-life of 26.7 h for photochemical degradation by hydroxyl radicals in air. Octan-1-ol contains no chromophores that would absorb visible or UV radiation, so direct photolysis is not likely to be significant. |
| Biodegradation: | Not readily biodegradable | Readily biodegradable |

12.3 Bioaccumulative potential: The mixture has a low bioaccumulative potential (based on active substance)

| | Relevant components | |
|--|------------------------------------|-----------------------------------|
| | Mesotrione | n-octanol |
| Partition coefficient n-octanol/water (log K_{ow}): | pH 5.5, Log K _{ow} = 0.11 | pH 5.5, Log K _{ow} = 3.5 |
| Bioconcentration factor (BCF): | - | 9.1 L/kg |

12.4 Mobility in soil: Moderately mobile to mobile (based on active substance)

| | Relevant components | |
|---|---------------------|-----------|
| | Mesotrione | n-octanol |
| Known or predicted distribution to environmental compartments: | - | - |
| Surface tension: | 61.5 mN/m | 19.8 mN/m |
| Adsorption/Desorption: | Kfoc = 14-354 ml/g | - |

12.5 Results of PBT and vPvB assessment

Does not fulfil the criteria for classification as PBT or vPvB.

12.6 Endocrine disrupting properties

None known

12.7 Other adverse effects:

None known

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal of waste product, contaminated packaging materials and any excess diluted spray should be in accordance with all relevant national legislation.

For the handling and management of accidental release, follow the information given under Section 6 and 7.

14. TRANSPORT INFORMATION

14.1 UN number

UN3082

14.2 UN Proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains mesotrione)

14.3 Transport hazard class(es)

9

14.4 Packing group

III

14.5 Environmental hazards

Land transport ADR/RID - Environmentally Hazardous: Yes
Maritime transport IMDG - Marine pollutant: Yes

Note: When transported in packages of 5 litres and less (UN3082) these goods are exempt from the main requirements of the transport regulations by virtue of Special Provision 375 of the ADR regulations for transport by road, Section 2.10.2.7 of the IMDG code 37-14 for transport by sea and Special Provision A197 of the IATA regulations for transport by air.

14.6 Special Precautions for User

Land transport ADR/RID - Tunnel restriction code: -

14.7 Transport in bulk according to IMO instruments

IBC Code: IBC03

15. REGULATORY INFORMATION

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

EU Regulations

REGULATION (EC) No 1107/2009 of The European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC.

REGULATION (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

REGULATION (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

National Regulations/legislation:

Refer to applicable national classification, packaging and labelling legislation.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment under Regulation (EC) 1907/2006 is required and has not been carried out.

16. OTHER INFORMATION

a) Indication of changes:

The numbering system identifying new versions and/or revisions of this SDS is incremental. An increment by an integer number identifies the issue of a new version requiring provision of updates according to Article 31(9) of REACH, while an increment by a decimal identifies minor changes such as typographical errors, text improvements and/or formatting.

Revisions indicated by a decimal point do not affect the risk management measures or information on hazards, do not refer to restrictions imposed and/or to authorisations granted or refused.

The paragraphs where changes have been made are indicated by the symbol '!' in the margin.

Differences between this version and the previous one: This is the first version of this SDS.

b) Abbreviations and acronyms:

Met. Corr. 1: Corrosive to metals Category 1

Acute Tox. 4: Acute toxicity Category 4

Eye Dam. 1: Serious eye damage Category 1

Eye Irrit. 2: Eye Irritation Category 2

Skin Corr. 1B: Skin corrosion Category 1B

Skin Irrit. 2: Skin Irritation Category 2

Skin Sens. 1: Skin sensitization Category 1

Repr. 2: Reproductive toxicity Category 2

STOT RE 2: Specific Target Organ Toxicity Repeated Exposure Category 2

Aquatic Acute 1: Hazardous to the aquatic Environment, Acute Aquatic Hazard Category 1

Aquatic Chronic 1: Hazardous to the aquatic Environment, Long term Aquatic Hazard Category 1

Aquatic Chronic 3: Hazardous to the aquatic Environment, Long term Aquatic Hazard Category 3

c) Key literature references and sources for data:

Albaugh Europe Sàrl

ECHA Database

ECHA Guidance on the compilation of safety data sheets

ECHA guidance on the Application of the CLP Criteria

GESTIS - International limit values for chemical agents (Occupational exposure limits, OELs)

Peer review of the pesticide risk assessment of the active substance mesotrione - EFSA Journal 2016;14(3):4419

d) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

| Classification according to Regulation (EC) 1272/2008 | Classification procedure |
|---|--------------------------|
| Skin. Sens 1 – H317 | On basis of study data |
| Eye Dam. 1 – H318 | On basis of study data |
| Repr. 2 – H316d | Calculation method |
| Aquatic Acute 1 – H400 Aquatic Chronic 1 – H410 | On basis of study data |

e) Relevant H-statements and precautionary statements not written out in full under Sections 2 to 15:

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

f) Training advice:

General occupational hygiene training recommended.

g) Further information:

The information and recommendations in this publication are, to the best of our knowledge, information and belief, accurate at the date of publication. Nothing herein is to be construed as a warranty, expressed or implied. In all cases it is the responsibility of the user to determine the applicability of such information or the suitability of any products for their own particular purpose. This Material Safety Data Sheet was compiled by Albaugh Europe Sàrl (sds@albaugh.eu) in compliance with Regulation (EC) 1907/2006 as amended by 2020/878.