

# SAFETY DATA SHEET

According to REACH Regulation (EC) No 1907/2006, as amended by  
UK REACH Regulations SI 2019/758



## LORATE® SX®

|         |                |             |                                 |
|---------|----------------|-------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: -           |
| 1.0     | 31.01.2025     | 50001057    | Date of first issue: 31.01.2025 |

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

**Product name** LORATE® SX®

#### Other means of identification

**Product code** 50001057

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

Use of the Sub- : Herbicide  
stance/Mixture

Recommended restrictions : Use as recommended by the label.  
on use

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

##### Supplier Address

FMC Agro Limited  
Rectors Lane, Pentre  
Flintshire  
CH5 2DH  
United Kingdom

Telephone: + 44 1244 537370  
E-mail address: SDS-Info@fmc.com .

#### 1.4 Emergency telephone number

For leak, fire, spill or accident emergencies, call:  
England and Wales: 44-870-8200418 (CHEMTREC)

Medical emergency:  
England and Wales: 111  
Scotland: 84 54 24 2424

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK  
SI 2019/720, and UK SI 2020/1567)**

Short-term (acute) aquatic hazard, Cate- H400: Very toxic to aquatic life.

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gory 1

Long-term (chronic) aquatic hazard, Category 1

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

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

Hazard pictograms

:



Signal word

:

Warning

Hazard statements

:

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

:

**Response:**

P391 Collect spillage.

**Disposal:**

P501 Dispose of contents/container as hazardous waste in accordance with local regulations.

### Additional Labelling

EUH401

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

For special phrases (SP) and safety intervals, consult the label.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Components

| Chemical name | CAS-No.<br>EC-No.<br>Index-No. | Classification | Concentration<br>(% w/w) |
|---------------|--------------------------------|----------------|--------------------------|
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|  | Registration number                   |  |              |
|--|---------------------------------------|--|--------------|
| metsulfuron-methyl (ISO)                     | 74223-64-6<br>613-139-00-2            | Aquatic Acute 1;<br>H400<br>Aquatic Chronic 1;<br>H410<br><br>M-Factor (Acute<br>aquatic toxicity):<br>1,000<br>M-Factor (Chronic<br>aquatic toxicity):<br>1,000 | >= 10 - < 20 |
| sodium carbonate                             | 497-19-8<br>207-838-8<br>011-005-00-2 | Eye Irrit. 2; H319   | >= 1 - < 10  |
| Substances with a workplace exposure limit : |                                       |  |              |
| sucrose                                      | 57-50-1<br>200-334-9                  |  | >= 1 - < 10  |

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- Protection of first-aiders : Avoid inhalation, ingestion and contact with skin and eyes.
- If inhaled : Remove to fresh air.  
If unconscious, place in recovery position and seek medical advice.  
If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.
- In case of skin contact : If on clothes, remove clothes.  
If on skin, rinse well with water.  
Wash off with soap and plenty of water.  
Get medical attention if irritation develops and persists.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.

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If swallowed : Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Do not induce vomiting without medical advice.

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

Symptoms : To our knowledge, adverse effects in humans have not been reported.  
The product is not expected to cause severe adverse effects to health, but adverse health effects cannot be excluded in case of massive exposure.  
Generally, sulphonylurea herbicides cause lethargy, confusion, dizziness, seizures and coma on ingestion.

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

Treatment : Treat symptomatically.  
Immediate medical attention is required in case of ingestion.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Dry chemical, CO<sub>2</sub>, water spray or regular foam.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : Do not spread spilled material with high-pressure water streams.  
High volume water jet

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Fire may produce irritating, corrosive and/or toxic gases.  
Nitrogen oxides (NO<sub>x</sub>)  
Sulphur oxides  
Carbon oxides  
Hydrogen cyanide

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Firefighters should wear protective clothing and self-contained breathing apparatus.

Specific extinguishing methods : Use a water spray to cool fully closed containers.  
Remove undamaged containers from fire area if it is safe to do so.

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Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.  
Do not touch or walk through the spilled material.  
If it can be safely done, stop the leak.  
Ensure adequate ventilation.  
Use personal protective equipment.  
Avoid dust formation.  
Avoid breathing dust.  
Never return spills in original containers for re-use.  
Mark the contaminated area with signs and prevent access to unauthorized personnel.  
Only qualified personnel equipped with suitable protective equipment may intervene.

### 6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Never return spills in original containers for re-use.  
Pick up and transfer to properly labeled containers without creating dust.  
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.

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Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures : General industrial hygiene practice. Do not breathe dust. Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.

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

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully re-sealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : The product is stable under normal conditions of warehouse storage. Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.

Further information on storage stability : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

Specific use(s) : Registered pesticide to be used in accordance with a label approved by country-specific regulatory authorities.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

| Components | CAS-No. | Value type (Form of exposure) | Control parameters   | Basis   |
|------------|---------|-------------------------------|----------------------|---------|
| sucrose    | 57-50-1 | TWA                           | 10 mg/m <sup>3</sup> | GB EH40 |
|            |         | STEL                          | 20 mg/m <sup>3</sup> | GB EH40 |

#### Derived No Effect Level (DNEL)

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|----------------|---------|-----------------|--------------------------|-------|
|----------------|---------|-----------------|--------------------------|-------|

#### Predicted No Effect Concentration (PNEC)

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| Substance name   | Environmental Compartment | Value                        |
|--|---------------------------|------------------------------|
| Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy- | Fresh water               | 273 mg/l                     |
|  | Intermittent use/release  | 1 mg/l                       |
|  | Marine water              | 27.3 mg/l                    |
|  | Intermittent use/release  | 0.1 mg/l                     |
|  | Fresh water sediment      | 1030 mg/kg dry weight (d.w.) |
|  | Marine sediment           | 103 mg/kg dry weight (d.w.)  |
|  | Soil                      | 46.4 mg/kg dry weight (d.w.) |

### 8.2 Exposure controls

#### Personal protective equipment

- Eye/face protection : Eye wash bottle with pure water  
Tightly fitting safety goggles
- Hand protection  
Material : Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.
- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Skin and body protection : Dust impervious protective suit  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.
- Filter type : Particulates type (P)
- Protective measures : Plan first aid action before beginning work with this product.  
Always have on hand a first-aid kit, together with proper instructions.  
Wear suitable protective equipment.  
When using do not eat, drink or smoke.
- In the context of professional plant protection use as recommended, the end user must refer to the label and the instructions for use.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state : solid

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|  |   |                                 |
|--|---|---------------------------------|
| Form   | : | granules                        |
| Colour   | : | brown                           |
| Odour  | : | odourless                       |
| Odour Threshold                                  | : | not determined                  |
| Melting point/ range                             | : | Not available for this mixture. |
| Boiling point/boiling range                      | : |                                 |
|  |   | Decomposition                   |
| Flash point                                      | : | not determined                  |
| Upper explosion limit / Upper flammability limit | : | not determined                  |
| Lower explosion limit / Lower flammability limit | : | not determined                  |
| Relative vapour density                          | : | not determined                  |
| Density  | : | No data available               |
| Bulk density                                     | : | 0.660 g/m3 Tap density          |
| Solubility(ies)                                  |   |                                 |
| Water solubility                                 | : | No data available               |
| Solubility in other solvents                     | : | No data available               |
| Partition coefficient: n-octanol/water           | : | Not available for this mixture. |
| Auto-ignition temperature                        | : | No data available               |
| Viscosity  |   |                                 |
| Viscosity, dynamic                               | : |                                 |
|  |   | Not applicable                  |
| Viscosity, kinematic                             | : | not determined                  |
| Explosive properties                             | : | Not explosive                   |

### 9.2 Other information

|                  |   |                   |
|------------------|---|-------------------|
| Surface tension  | : | Not applicable    |
| Molecular weight | : | Not applicable    |
| Particle size    | : | No data available |
| Self-ignition    | : | not determined    |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

|                     |   |  |
|---------------------|---|--|
| Hazardous reactions | : | Dust may form explosive mixture in air.No decomposition if stored and applied as directed. |
|---------------------|---|--|

### 10.4 Conditions to avoid

|                     |   |   |
|---------------------|---|---|
| Conditions to avoid | : | Avoid extreme temperatures<br>Avoid dust formation.<br>Heat, flames and sparks.<br>Heating of the mixture may evolve harmful and irritant va- |
|---------------------|---|---|



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pours.

### 10.5 Incompatible materials

Materials to avoid : Avoid strong acids, bases, and oxidizers

### 10.6 Hazardous decomposition products

Stable under recommended storage conditions.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Not classified based on available information.

#### Product:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: Fixed Dose Method

LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Remarks: Information given is based on data on the components.

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 402

LD50 (Rabbit): > 2,000 mg/kg

#### Components:

##### **metsulfuron-methyl (ISO):**

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg  
Method: US EPA Test Guideline OPP 81-1  
Assessment: The substance or mixture has no acute oral toxicity

LD50 (Rat, female): > 5,000 mg/kg  
Method: OECD Test Guideline 425  
GLP: yes

Assessment: The substance or mixture has no acute oral toxicity  
Remarks: no mortality

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.11 mg/l

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Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Symptoms: Breathing difficulties  
GLP: yes  
Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: no mortality

Acute dermal toxicity : LD50 (Rabbit, male and female): > 5,000 mg/kg  
Method: OECD Test Guideline 402  
Symptoms: Irritation  
GLP: yes  
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: no mortality

### **sodium carbonate:**

Acute oral toxicity : LD50 (Rat, male and female): 2,800 mg/kg

Acute inhalation toxicity : LC50 (Rat, male): 2.3 mg/l  
Exposure time: 2 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Target Organs: Skin  
Symptoms: Erythema

### **sucrose:**

Acute oral toxicity : LD50 (Rat): 29,700 mg/kg

### **Skin corrosion/irritation**

Not classified based on available information.

### **Product:**

Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation

### **Components:**

#### **metsulfuron-methyl (ISO):**

Species : Rabbit  
Assessment : Not classified as irritant  
Method : US EPA Test Guideline OPP 81-5  
Result : No skin irritation

### **sodium carbonate:**

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|               |   |                         |
|---------------|---|-------------------------|
| Species       | : | Rabbit                  |
| Exposure time | : | 4 h                     |
| Method        | : | OECD Test Guideline 404 |
| Result        | : | No skin irritation      |

### Serious eye damage/eye irritation

Not classified based on available information.

#### Product:

|         |   |                         |
|---------|---|-------------------------|
| Species | : | Rabbit                  |
| Method  | : | OECD Test Guideline 405 |
| Result  | : | No eye irritation       |

#### Components:

##### **metsulfuron-methyl (ISO):**

|         |   |                         |
|---------|---|-------------------------|
| Species | : | Rabbit                  |
| Method  | : | OECD Test Guideline 405 |
| Result  | : | No eye irritation       |

##### **sodium carbonate:**

|         |   |  |
|---------|---|--|
| Species | : | Rabbit                                       |
| Result  | : | Irritation to eyes, reversing within 21 days |

### Respiratory or skin sensitisation

#### **Skin sensitisation**

Not classified based on available information.

#### **Respiratory sensitisation**

Not classified based on available information.

#### Product:

|         |   |                         |
|---------|---|-------------------------|
| Species | : | Guinea pig              |
| Method  | : | OECD Test Guideline 406 |
| Result  | : | Not a skin sensitizer.  |

#### Components:

##### **metsulfuron-methyl (ISO):**

|                 |   |                                      |
|-----------------|---|--------------------------------------|
| Test Type       | : | Maximisation Test                    |
| Exposure routes | : | Skin contact                         |
| Species         | : | Guinea pig                           |
| Method          | : | US EPA Test Guideline OPPTS 870.2600 |
| Result          | : | Not a skin sensitizer.               |

### Germ cell mutagenicity

Not classified based on available information.

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### **Product:**

Germ cell mutagenicity- Assessment : Contains no ingredient listed as a mutagen

### **Components:**

#### **metsulfuron-methyl (ISO):**

Genotoxicity in vitro : Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
GLP: yes

Test Type: Chromosome aberration test in vitro  
Metabolic activation: Metabolic activation  
Result: positive  
GLP: yes

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse  
Result: negative

#### **sodium carbonate:**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)  
Result: negative  
Remarks: Based on data from similar materials

Germ cell mutagenicity- Assessment : Weight of evidence does not support classification as a germ cell mutagen.

### **Carcinogenicity**

Not classified based on available information.

### **Product:**

Carcinogenicity - Assessment : Contains no ingredient listed as a carcinogen

### **Components:**

#### **metsulfuron-methyl (ISO):**

Species : Rat, male and female  
Exposure time : 104 weeks  
NOAEL : 500 ppm  
Result : negative

Species : Mouse, male and female  
Exposure time : 18 month(s)

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NOAEL : 5,000 ppm  
Result : negative

### Reproductive toxicity

Not classified based on available information.

#### Product:

Reproductive toxicity - Assessment : Contains no ingredient listed as toxic to reproduction

#### Components:

##### **metsulfuron-methyl (ISO):**

Effects on fertility : Test Type: Two-generation study  
Species: Rat, male and female  
Application Route: Oral  
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development  
Species: Rabbit, female  
Application Route: Ingestion  
Symptoms: Maternal effects  
Result: negative

Test Type: Embryo-foetal development  
Species: Rat, female  
Application Route: Ingestion  
Symptoms: Maternal effects  
Result: negative

##### **sodium carbonate:**

Effects on foetal development : Species: Rat  
Application Route: Oral  
Dose: 2.45, 11.4, 52.9, 245 milligram per kilogram  
Duration of Single Treatment: 6 - 15 d  
General Toxicity Maternal: NOAEL: > 245 mg/kg body weight  
Teratogenicity: NOAEL: > 245 mg/kg body weight  
Result: negative

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

### STOT - single exposure

Not classified based on available information.

#### Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

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### STOT - repeated exposure

Not classified based on available information.

#### Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### Components:

##### **sodium carbonate:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### Repeated dose toxicity

#### Components:

##### **metsulfuron-methyl (ISO):**

Species : Rat, male and female  
NOEL : 1000 ppm  
Application Route : Oral - feed  
Exposure time : 90 days  
Symptoms : Reduced body weight

##### **sodium carbonate:**

Species : Rat, male and female  
NOAEL : > 0.01 mg/kg  
Application Route : inhalation (dust/mist/fume)  
Test atmosphere : dust/mist

### Aspiration toxicity

Not classified based on available information.

#### Product:

The mixture does not have properties associated with aspiration hazard potential.

### Neurological effects

#### Components:

##### **metsulfuron-methyl (ISO):**

No neurotoxicity observed in animal studies

### Further information

#### Product:

Remarks : No data available

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### SECTION 12: Ecological information

#### 12.1 Toxicity

##### Product:

- |   |   |   |
|---|---|---|
| Toxicity to fish                                    | : | LC50 (Oncorhynchus mykiss (rainbow trout)): > 625 mg/l<br>Exposure time: 96 h   |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 625 mg/l<br>Exposure time: 48 h  |
| Toxicity to algae/aquatic plants                    | : | ErC50 (Pseudokirchneriella subcapitata (green algae)): > 1.6 mg/l<br>Exposure time: 72 h<br><br>EC50 (Lemna gibba (duckweed)): 2.35 µg/l<br>Exposure time: 14 d   |
| Toxicity to terrestrial organisms                   | : | LD50: > 100 µg/bee<br>Exposure time: 48 h<br>End point: Acute contact toxicity<br>Species: Apis mellifera (bees)<br><br>LD50: 114 µg/bee<br>Exposure time: 48 h<br>End point: Acute oral toxicity<br>Species: Apis mellifera (bees) |

##### **Ecotoxicology Assessment**

- |                          |   |   |
|--------------------------|---|---|
| Acute aquatic toxicity   | : | Very toxic to aquatic life.<br>Remarks: Based on EU Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)                           |
| Chronic aquatic toxicity | : | Very toxic to aquatic life with long lasting effects.<br>Remarks: Based on EU Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation) |

##### Components:

##### **metsulfuron-methyl (ISO):**

- |   |   |  |
|---|---|--|
| Toxicity to fish                                    | : | LC50 (Poecilia reticulata (guppy)): > 100 mg/l<br>Exposure time: 96 h  |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 120 mg/l<br>Exposure time: 48 h<br>Test Type: static test<br>Method: OECD Test Guideline 202<br><br>EC50 (Daphnia magna (Water flea)): 43.1 mg/l<br>End point: Immobilization |

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Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : ErC50 (Anabaena flos-aquae (cyanobacterium)): 65.7 µg/l  
Exposure time: 96 h  
Method: OPPTS 850.5400  
GLP: yes

NOEC (Anabaena flos-aquae (cyanobacterium)): 45 µg/l  
Exposure time: 96 h  
Method: OPPTS 850.5400  
GLP: yes

ErC50 (Selenastrum capricornutum (green algae)): 157 µg/l  
Exposure time: 72 h  
GLP: yes

NOEC (Selenastrum capricornutum (green algae)): 50 µg/l  
Exposure time: 72 h  
GLP: yes

M-Factor (Acute aquatic toxicity) : 1,000

Toxicity to fish (Chronic toxicity) : NOEC: 68 mg/l  
Exposure time: 21 d  
Species: Oncorhynchus mykiss (rainbow trout)

NOEC: 10 mg/l  
End point: reproduction  
Exposure time: 21 d  
Species: Pimephales promelas (fathead minnow)  
Method: OECD Test Guideline 229  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 3.13 mg/l  
End point: reproduction  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test Type: semi-static test  
Method: OECD Test Guideline 211

NOEC: 0.5 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic toxicity) : 1,000

Toxicity to soil dwelling or- : NOEC: 6 mg/kg



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ganisms

Exposure time: 56 d  
Species: Eisenia fetida (earthworms)

NOEC: 5.6 mg/kg  
End point: reproduction  
Species: Eisenia fetida (earthworms)  
Method: OECD Test Guideline 222  
GLP:yes

Method: OECD Test Guideline 216  
Remarks: No significant adverse effect on nitrogen mineraliza-  
tion.

Toxicity to terrestrial organ-  
isms

: LD50: > 50 µg/bee  
Exposure time: 48 h  
End point: Acute contact toxicity  
Species: Apis mellifera (bees)  
Method: OEPP/EPPO Test Guideline 170

LD50: > 50 µg/bee  
Exposure time: 48 h  
End point: Acute oral toxicity  
Species: Apis mellifera (bees)  
Method: OEPP/EPPO Test Guideline 170

LD50: > 2,510 mg/kg  
Species: Anas platyrhynchos (Mallard duck)

NOEC: 1,000 mg/kg  
End point: Reproduction Test  
Species: Colinus virginianus

NOEC: 1,000 ppm  
End point: Reproduction Test  
Species: Anas platyrhynchos (Mallard duck)  
Method: OECD Test Guideline 206

### sodium carbonate:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 300 mg/l  
Exposure time: 96 h  
Test Type: static test

Toxicity to daphnia and other : EC50 (Ceriodaphnia (water flea)): 200 mg/l  
aquatic invertebrates Exposure time: 48 h  
Test Type: semi-static test

### sucrose:

Toxicity to fish : Remarks: No data available

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### 12.2 Persistence and degradability

#### Product:

Biodegradability : Result: Not readily biodegradable.  
Remarks: Estimation based on data obtained on active ingredient.  
Product contains minor amounts of not readily biodegradable components, which may not be degradable in waste water treatment plants.

#### Components:

##### **metsulfuron-methyl (ISO):**

Biodegradability : Result: Not readily biodegradable.  
Remarks: Primary degradation half-lives vary with circumstances, from a few weeks to a few months in aerobic soil and water.

##### **sodium carbonate:**

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

##### **sucrose:**

Biodegradability : Remarks: No data available

### 12.3 Bioaccumulative potential

#### Components:

##### **metsulfuron-methyl (ISO):**

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)  
Exposure time: 28 d  
Bioconcentration factor (BCF): < 1  
Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : Pow: 0.018 (25 °C)  
log Pow: -1.7 (25 °C)  
pH: 7

##### **sodium carbonate:**

Bioaccumulation : Remarks: Does not bioaccumulate.

### 12.4 Mobility in soil

No data available

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### 12.5 Results of PBT and vPvB assessment

**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Other adverse effects

**Product:**

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Additional ecological information : See product label for additional application instructions relating to environmental precautions.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Very toxic to aquatic life with long lasting effects.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Do not re-use empty containers.  
Packaging that is not properly emptied must be disposed of as the unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.

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## SECTION 14: Transport information

### 14.1 UN number

ADN : UN 3077  
ADR : UN 3077

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|             |           |
|-------------|-----------|
| <b>RID</b>  | : UN 3077 |
| <b>IMDG</b> | : UN 3077 |
| <b>IATA</b> | : UN 3077 |

### 14.2 UN proper shipping name

|             |   |
|-------------|---|
| <b>ADN</b>  | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,<br>N.O.S.<br>(Metsulfuron-methyl) |
| <b>ADR</b>  | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,<br>N.O.S.<br>(Metsulfuron-methyl) |
| <b>RID</b>  | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,<br>N.O.S.<br>(Metsulfuron-methyl) |
| <b>IMDG</b> | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,<br>N.O.S.<br>(Metsulfuron-methyl) |
| <b>IATA</b> | : Environmentally hazardous substance, solid, n.o.s.<br>(Metsulfuron-methyl)    |

### 14.3 Transport hazard class(es)

|             | Class | Subsidiary risks |
|-------------|-------|------------------|
| <b>ADN</b>  | : 9   |                  |
| <b>ADR</b>  | : 9   |                  |
| <b>RID</b>  | : 9   |                  |
| <b>IMDG</b> | : 9   |                  |
| <b>IATA</b> | : 9   |                  |

### 14.4 Packing group

|                              |       |
|------------------------------|-------|
| <b>ADN</b>                   |       |
| Packing group                | : III |
| Classification Code          | : M7  |
| Hazard Identification Number | : 90  |
| Labels                       | : 9   |
| <b>ADR</b>                   |       |
| Packing group                | : III |
| Classification Code          | : M7  |
| Hazard Identification Number | : 90  |
| Labels                       | : 9   |
| Tunnel restriction code      | : (-) |
| <b>RID</b>                   |       |
| Packing group                | : III |
| Classification Code          | : M7  |
| Hazard Identification Number | : 90  |

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Labels : 9

### IMDG

Packing group : III  
Labels : 9  
EmS Code : F-A, S-F

### IATA (Cargo)

Packing instruction (cargo aircraft) : 956  
Packing instruction (LQ) : Y956  
Packing group : III  
Labels : Miscellaneous

### IATA (Passenger)

Packing instruction (passenger aircraft) : 956  
Packing instruction (LQ) : Y956  
Packing group : III  
Labels : Miscellaneous

## 14.5 Environmental hazards

### ADN

Environmentally hazardous : yes

### ADR

Environmentally hazardous : yes

### RID

Environmentally hazardous : yes

### IMDG

Marine pollutant : yes

### IATA (Passenger)

Environmentally hazardous : yes

### IATA (Cargo)

Environmentally hazardous : yes

## 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

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UK REACH List of restrictions (Annex 17) : Not applicable

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation : Not applicable

The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain) : Not applicable

Regulation (EC) on substances that deplete the ozone layer : Not applicable

UK REACH List of substances subject to authorisation (Annex XIV) : Not applicable

GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation : Not applicable

Control of Major Accident Hazards Regulations 2015 (COMAH) E1 ENVIRONMENTAL HAZARDS

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)  
Not applicable

### The components of this product are reported in the following inventories:

TCSI : On the inventory, or in compliance with the inventory

TSCA : Product contains substance(s) not listed on TSCA inventory.

AIIC : Not in compliance with the inventory

DSL : This product contains the following components that are not on the Canadian DSL nor NDSL.

METHYL 2-[[[4-METHOXY-6-METHYL-1,3,5-TRIAZIN-2-YL)CARBAMOYL]SULFAMOYL]BENZOATE

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

NZIoC : Not in compliance with the inventory

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TECI : Not in compliance with the inventory

### 15.2 Chemical safety assessment

A chemical safety assessment is not required for this product (mixture).

## SECTION 16: Other information

### Full text of H-Statements

|      |   |
|------|---|
| H319 | : Causes serious eye irritation.                        |
| H400 | : Very toxic to aquatic life.                           |
| H410 | : Very toxic to aquatic life with long lasting effects. |

### Full text of other abbreviations

|                 |  |
|-----------------|--|
| Aquatic Acute   | : Short-term (acute) aquatic hazard                      |
| Aquatic Chronic | : Long-term (chronic) aquatic hazard                     |
| Eye Irrit.      | : Eye irritation   |
| GB EH40         | : UK. EH40 WEL - Workplace Exposure Limits               |
| GB EH40 / TWA   | : Long-term exposure limit (8-hour TWA reference period) |
| GB EH40 / STEL  | : Short-term exposure limit (15-minute reference period) |

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN

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- United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### Further information

Other information :

#### Classification of the mixture:

|                   |      |
|-------------------|------|
| Aquatic Acute 1   | H400 |
| Aquatic Chronic 1 | H410 |

#### Classification procedure:

Based on product data or assessment  
Based on product data or assessment

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