

# SAFETY DATA SHEET



## Carfentrazone-ethyl 40 DF

|         |                |             |                                 |
|---------|----------------|-------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: -           |
| 2.1     | 2022/08/15     | 50000493    | Date of first issue: 2018/03/27 |

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### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Carfentrazone-ethyl 40 DF

Other means of identification : KUAIMIELING 40 DF  
AURORA 40 DF  
AFFINITY™ 40 DF  
AIM 40WG  
SHARK™ H20

#### Recommended use of the chemical and restrictions on use

Recommended use : Herbicide

Restrictions on use : Use as recommended by the label.

#### Manufacturer or supplier's details

Address : FMC Corporation  
2929 WALNUT ST  
PHILADELPHIA PA 19104  
USA

Telephone : (215) 299-6000

E-mail address : SDS-Info@fmc.com

Emergency telephone : For leak, fire, spill or accident emergencies, call:  
001-803-017-9114 (CHEMTREC)  
1 703 / 741-5970 (CHEMTREC - International)

Medical emergency:  
0800 140 1447

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### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1


#### GHS label elements

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Hazard pictograms : 

Signal Word : Warning

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

Precautionary Statements : **Prevention:**  
P273 Avoid release to the environment.  
**Response:**  
P391 Collect spillage.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards which do not result in classification

None known.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

| Chemical name                                      | CAS-No.     | Concentration (% w/w) |
|--|-------------|-----------------------|
| silica gel   | 112926-00-8 | >= 30 -< 60           |
| carfentrazone-ethyl (ISO)                          | 128639-02-1 | >= 30 -< 60           |
| D-Glucopyranose, oligomers, decyl octyl glycosides | 68515-73-1  | >= 1 -< 3             |

## 4. 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.

If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.

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.

If swallowed : Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.

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If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed : None known.

Notes to physician : Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Dry chemical, CO<sub>2</sub>, water spray or regular foam.

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

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

Hazardous combustion products : Nitrogen oxides (NO<sub>x</sub>)  
Carbon oxides  
Chlorine compounds  
Fluorine compounds

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

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

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Use personal protective equipment.  
If it can be safely done, stop the leak.  
Do not touch or walk through the spilled material.  
Avoid dust formation.  
Never return spills in original containers for re-use.  
For disposal considerations see section 13.

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.

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Methods and materials for containment and cleaning up : Keep in suitable, closed containers for disposal.

### 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Provide appropriate exhaust ventilation at places where dust is formed.

Advice on safe handling : For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Avoid formation of respirable particles.

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

Further information on storage stability : Keep in a dry place.  
No decomposition if stored and applied as directed.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

| Components  | CAS-No.     | Value type (Form of exposure)      | Control parameters / Permissible concentration | Basis  |
|---|-------------|------------------------------------|--|--------|
| silica gel  | 112926-00-8 | NAB                                | 10 mg/m <sup>3</sup>                           | ID OEL |
| Further information: Chemicals with a limit value higher than the Allowable Exposure Limit (PEL) of OSHA and/or the recommended NIOSH limit value |             |                                    |  |        |
| carfentrazone-ethyl (ISO)   | 128639-02-1 | TWA (Inhalable particulate matter) | 1 mg/m <sup>3</sup>                            | ACGIH  |

#### Personal protective equipment

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type : Particulates type

Hand protection  
Material : Protective gloves

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|                          |  |
|--------------------------|--|
| Remarks                  | : The suitability for a specific workplace should be discussed with the producers of the protective gloves.  |
| Eye protection           | : Eye wash bottle with pure water<br>Tightly fitting safety goggles  |
| Skin and body protection | : Protective suit<br>Dust impervious protective suit<br>Choose body protection according to the amount and concentration of the dangerous substance at the work place.             |
| Protective measures      | : Plan first aid action before beginning work with this product.   |
| Hygiene measures         | : General industrial hygiene practice.<br>Avoid contact with skin, eyes and clothing.<br>Do not breathe dust or spray mist.<br>Wash hands before breaks and at the end of workday. |

### 9. PHYSICAL AND CHEMICAL PROPERTIES

|  |  |
|--|--|
| Appearance                                       | : powder                                 |
| Color  | : brown                                  |
|  | No data available                        |
| Odor   | : musty                                  |
|  | slight                                   |
| Odor Threshold                                   | : No data available                      |
| pH   | : 7,5 (25 °C)<br>Concentration: 5,44 g/l |
| Melting point/range                              | : No data available                      |
| Boiling point/boiling range                      | : No data available                      |
| Flash point                                      | : Not applicable                         |
| Self-ignition                                    | : No data available                      |
| Upper explosion limit / Upper flammability limit | : No data available                      |
| Lower explosion limit / Lower flammability limit | : No data available                      |

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|  |                          |
|--|--------------------------|
| Vapor pressure                         | : Not applicable         |
| Relative density                       | : 0,55                   |
| Density                                | : 0,55 g/cm <sup>3</sup> |
| Solubility(ies)<br>Water solubility    | : dispersible            |
| Partition coefficient: n-octanol/water | : Not applicable         |
| Autoignition temperature               | : No data available      |
| Decomposition temperature              | : No data available      |
| Viscosity<br>Viscosity, dynamic        | : Not applicable         |
| Viscosity, kinematic                   | : Not applicable         |

### 10. STABILITY AND REACTIVITY

|                                    |  |
|------------------------------------|--|
| Reactivity                         | : No decomposition if stored and applied as directed.  |
| Chemical stability                 | : No decomposition if stored and applied as directed.  |
| Possibility of hazardous reactions | : No decomposition if stored and applied as directed.<br>Dust may form explosive mixture in air. |
| Conditions to avoid                | : Avoid extreme temperatures.<br>Avoid dust formation.<br><br>No data available                  |
| Incompatible materials             | : Avoid strong acids, bases, and oxidizers.<br><br>Not applicable                                |

### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

Not classified based on available information.

#### **Product:**

|                           |   |
|---------------------------|---|
| Acute oral toxicity       | : LD <sub>50</sub> (Rat, female): > 5.000 mg/kg<br>Method: OECD Test Guideline 425  |
| Acute inhalation toxicity | : LC <sub>50</sub> (Rat, male and female): > 5,18 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: OECD Test Guideline 403 |

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Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: no mortality  
Highest attainable concentration.

Acute dermal toxicity : LD50 (Rat, male and female): > 5.000 mg/kg  
Method: OECD Test Guideline 402

### **Components:**

#### **silica gel:**

Acute oral toxicity : LD50 (Rat, male and female): > 5.000 mg/kg  
Method: OECD Test Guideline 401  
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC0 (Rat, male and female): > 0,14 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Remarks: Based on data from similar materials  
no mortality

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg  
Remarks: Based on data from similar materials

#### **carfentrazone-ethyl (ISO):**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: FIFRA 81.01

Acute inhalation toxicity : LC50 (Rat): > 5,09 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 4.000 mg/kg  
Method: US EPA Test Guideline OPP 81-2  
Assessment: The substance or mixture has no acute dermal toxicity

#### **D-Glucopyranose, oligomers, decyl octyl glycosides:**

Acute oral toxicity : LD50 (Rat, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 423

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2.000 mg/kg  
Method: OECD Test Guideline 402

### **Skin corrosion/irritation**

Not classified based on available information.

### **Product:**

Species : Rabbit

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|        |   |                         |
|--------|---|-------------------------|
| Method | : | OECD Test Guideline 404 |
| Result | : | slight irritation       |

### **Components:**

#### **silica gel:**

|         |   |                                      |
|---------|---|--------------------------------------|
| Species | : | Rabbit                               |
| Method  | : | OECD Test Guideline 404              |
| Result  | : | No skin irritation                   |
| Remarks | : | Based on data from similar materials |

#### **carfentrazone-ethyl (ISO):**

|         |   |                                |
|---------|---|--------------------------------|
| Species | : | Rabbit                         |
| Method  | : | US EPA Test Guideline OPP 81-5 |
| Result  | : | No skin irritation             |

#### **D-Glucopyranose, oligomers, decyl octyl glycosides:**

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

#### **Serious eye damage/eye irritation**

Not classified based on available information.

### **Product:**

|         |   |   |
|---------|---|---|
| Species | : | Rabbit  |
| Result  | : | slight irritation   |
| Method  | : | OECD Test Guideline 405   |
| Remarks | : | Based on available data, the classification criteria are not met. |

### **Components:**

#### **silica gel:**

|         |   |                                      |
|---------|---|--------------------------------------|
| Species | : | Rabbit                               |
| Result  | : | No eye irritation                    |
| Method  | : | OECD Test Guideline 405              |
| Remarks | : | Based on data from similar materials |

#### **carfentrazone-ethyl (ISO):**

|         |   |                   |
|---------|---|-------------------|
| Species | : | Rabbit            |
| Result  | : | slight irritation |
| Method  | : | EPA OPP 81-4      |

#### **D-Glucopyranose, oligomers, decyl octyl glycosides:**

|         |   |                                      |
|---------|---|--------------------------------------|
| Species | : | Rabbit                               |
| Result  | : | Irreversible effects on the eye      |
| Method  | : | OECD Test Guideline 405              |
| Remarks | : | Based on data from similar materials |



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**Respiratory or skin sensitization****Skin sensitization**

Not classified based on available information.

**Respiratory sensitization**

Not classified based on available information.

**Product:**

|           |                                      |
|-----------|--------------------------------------|
| Test Type | : Local lymph node assay (LLNA)      |
| Species   | : Mouse                              |
| Method    | : OECD Test Guideline 429            |
| Result    | : Does not cause skin sensitization. |

**Components:****carfentrazone-ethyl (ISO):**

|         |                                      |
|---------|--------------------------------------|
| Species | : Guinea pig                         |
| Method  | : US EPA Test Guideline OPP 81-6     |
| Result  | : Does not cause skin sensitization. |

**D-Glucopyranose, oligomers, decyl octyl glycosides:**

|         |  |
|---------|--|
| Species | : Guinea pig                           |
| Method  | : OECD Test Guideline 406              |
| Result  | : Does not cause skin sensitization.   |
| Remarks | : Based on data from similar materials |

**Germ cell mutagenicity**

Not classified based on available information.

**Components:****silica gel:**

|                       |   |
|-----------------------|---|
| Genotoxicity in vitro | : Test Type: reverse mutation assay<br>Method: OECD Test Guideline 471<br>Result: negative<br>Remarks: Based on data from similar materials |
|-----------------------|---|

|                      |   |
|----------------------|---|
| Genotoxicity in vivo | : Species: Rat (male)<br>Application Route: Inhalation<br>Result: negative<br>Remarks: Based on data from similar materials |
|----------------------|---|

**carfentrazone-ethyl (ISO):**

|                       |   |
|-----------------------|---|
| Genotoxicity in vitro | : Test Type: reverse mutation assay<br>Result: negative<br><br>Test Type: Chromosome aberration test in vitro<br>Test system: Chinese hamster ovary cells<br>Metabolic activation: Metabolic activation<br>Result: negative<br><br>Test Type: Chromosome aberration test in vitro |
|-----------------------|---|

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Test system: Chinese hamster ovary cells  
Result: positive

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse (male and female)  
Result: negative

Germ cell mutagenicity - Assessment : No genotoxic potential.

### D-Glucopyranose, oligomers, decyl octyl glycosides:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Method: OECD Test Guideline 473  
Result: negative  
Remarks: Based on data from similar materials

Test Type: gene mutation test  
Method: OECD Test Guideline 476  
Result: negative

Test Type: reverse mutation assay  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Micronucleus test  
Species: Mouse (male)  
Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: negative

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

### Carcinogenicity

Not classified based on available information.

### Components:

#### silica gel:

Species : Rat  
Application Route : Oral  
Exposure time : 103 weeks  
Method : OECD Test Guideline 453  
Result : negative  
Remarks : Based on data from similar materials

#### carfentrazone-ethyl (ISO):

Species : Rat, male and female  
Application Route : Oral  
Exposure time : 104 weeks  
NOAEL : 3 - 9 mg/kg bw/day  
Result : negative

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Species : Mouse, male and female  
Application Route : Oral  
Exposure time : 80 weeks  
NOAEL : > 7.000 ppm  
Result : negative

Species : Dog, male and female  
Exposure time : 52 weeks  
NOAEL : 150 mg/kg bw/day  
Result : negative

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

### Reproductive toxicity

Not classified based on available information.

### Components:

#### **silica gel:**

Effects on fetal development : Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Oral  
Result: negative  
Remarks: Based on data from similar materials

#### **carfentrazone-ethyl (ISO):**

Effects on fertility : Test Type: Multi-generation study  
Species: Rat, male and female  
Application Route: Ingestion  
Fertility: NOEL: 4.000 ppm  
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development  
Species: Rat, female  
Application Route: Oral  
General Toxicity Maternal: NOEL: 100 mg/kg bw/day  
Embryo-fetal toxicity.: NOEL: 600 mg/kg bw/day  
Result: negative

Test Type: Embryo-fetal development  
Species: Rabbit, female  
Application Route: Oral  
General Toxicity Maternal: NOEL: 150 mg/kg bw/day  
Embryo-fetal toxicity.: NOEL: > 300 mg/kg bw/day  
Result: negative

Reproductive toxicity - Assessment : Animal testing showed no reproductive toxicity.

#### **D-Glucopyranose, oligomers, decyl octyl glycosides:**

Effects on fertility : Test Type: one-generation reproductive toxicity

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Species: Rat, male and female  
Application Route: Oral  
Dose: 0, 100, 300, 1000 mg/kg bw  
General Toxicity Parent: NOAEL: 1.000 mg/kg bw/day  
Method: OECD Test Guideline 421  
Result: negative  
Remarks: Based on data from similar materials

Effects on fetal development : Species: Rat, females  
Application Route: Oral  
Dose: 0, 100, 300, 1000 mg/kg bw  
General Toxicity Maternal: NOAEL: 1.000 mg/kg bw/day  
Developmental Toxicity: NOAEL: 1.000 mg/kg bw/day  
Method: OECD Test Guideline 414  
Result: negative  
Remarks: Based on data from similar materials

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

### STOT-single exposure

Not classified based on available information.

#### Components:

##### **carfentrazone-ethyl (ISO):**

Remarks : No significant adverse effects were reported

### STOT-repeated exposure

Not classified based on available information.

#### Components:

##### **carfentrazone-ethyl (ISO):**

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

##### **D-Glucopyranose, oligomers, decyl octyl glycosides:**

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

### Repeated dose toxicity

#### Components:

##### **silica gel:**

Species : Rat, male and female  
NOAEL : 2.500 mg/kg  
Application Route : Oral  
Exposure time : 13 weeks  
Method : OECD Test Guideline 408  
Remarks : Based on data from similar materials

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|                   |  |
|-------------------|--|
| Species           | : Rat, male and female                 |
| NOAEL             | : 1,3 - 10 mg/l                        |
| LOAEL             | : 5,9 mg/l                             |
| Application Route | : Inhalation                           |
| Exposure time     | : 13 weeks                             |
| Method            | : OECD Test Guideline 413              |
| Remarks           | : Based on data from similar materials |

### **carfentrazone-ethyl (ISO):**

|                   |                        |
|-------------------|------------------------|
| Species           | : Rat, male and female |
| NOEL              | : 1000 ppm             |
| Application Route | : Oral                 |
| Exposure time     | : 90 days              |

|                   |                        |
|-------------------|------------------------|
| Species           | : Rat, male and female |
| NOEL              | : 1000 ppm             |
| Application Route | : Dermal               |
| Exposure time     | : 21 days              |

### **D-Glucopyranose, oligomers, decyl octyl glycosides:**

|                   |  |
|-------------------|--|
| Species           | : Rat, male and female                 |
| NOAEL             | : 1000 mg/kg bw/day                    |
| Application Route | : Oral                                 |
| Exposure time     | : 90d                                  |
| Dose              | : 0, 250, 500, 1000 mg/kg bw           |
| Remarks           | : Based on data from similar materials |

### **Aspiration toxicity**

Not classified based on available information.

#### **Product:**

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

#### **Components:**

##### **carfentrazone-ethyl (ISO):**

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

### **Neurological effects**

#### **Components:**

##### **carfentrazone-ethyl (ISO):**

No neurotoxicity observed in animal studies.

### **Further information**

#### **Product:**

|         |                     |
|---------|---------------------|
| Remarks | : No data available |
|---------|---------------------|

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**12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**

- |                                     |   |  |
|-------------------------------------|---|--|
| Toxicity to algae/aquatic plants    | : | NOEC (algae): 0,0063 mg/l<br>Exposure time: 72 h<br><br>ErC50 (algae): 0,067 mg/l<br>Exposure time: 72 h<br><br>NOEC (Lemna gibba (gibbous duckweed)): 0.00158 µg/l<br>Exposure time: 7 d<br>Method: OECD Test Guideline 221<br><br>EC50 (Lemna gibba (gibbous duckweed)): 0.030 µg/l<br>Exposure time: 7 d<br>Method: OECD Test Guideline 221 |
| Toxicity to soil dwelling organisms | : | NOEC (Eisenia fetida (earthworms)): 45,9 mg/kg<br>Method: OECD Test Guideline 222<br><br>LC50 (Eisenia fetida (earthworms)): > 45,9 mg/kg<br>Method: OECD Test Guideline 222   |
| Toxicity to terrestrial organisms   | : | LD50 (Apis mellifera (bees)): > 200 µg/bee<br>Exposure time: 48 h<br>End point: Acute oral toxicity<br>Method: OECD Test Guideline 213   |

**Components:****silica gel:**

- |   |   |   |
|---|---|---|
| Toxicity to fish                                    | : | LC50 (Brachydanio rerio (zebrafish)): > 10.000 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203   |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 10.000 mg/l<br>Exposure time: 24 h<br>Method: OECD Test Guideline 202<br>Remarks: Based on data from similar materials           |
| Toxicity to algae/aquatic plants                    | : | NOELR (Desmodesmus subspicatus (green algae)): 10.000 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br>Remarks: Based on data from similar materials |

**Ecotoxicology Assessment**

- |                          |   |   |
|--------------------------|---|---|
| Acute aquatic toxicity   | : | This product has no known ecotoxicological effects. |
| Chronic aquatic toxicity | : | This product has no known ecotoxicological effects. |

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**carfentrazone-ethyl (ISO):**

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1,6 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): > 9,8 mg/l  
Exposure time: 48 h
- Toxicity to algae/aquatic plants : EC50 (Anabaena flos-aquae (cyanobacterium)): 0,012 mg/l  
Exposure time: 72 h
- NOEC (algae): 0,001 mg/l  
Exposure time: 96 h
- EC50 (Lemna gibba (gibbous duckweed)): 0,0057 mg/l  
Exposure time: 14 d
- M-Factor (Acute aquatic toxicity) : 10
- Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0,0187 mg/l  
Exposure time: 21 d
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Crustaceans): 0,22 mg/l  
Exposure time: 21 d
- M-Factor (Chronic aquatic toxicity) : 100
- Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 820 mg/kg
- Toxicity to terrestrial organisms : LD50 (Anas platyrhynchos (Mallard duck)): > 5.620 ppm  
End point: Acute oral toxicity
- LD50 (Colinus virginianus (Bobwhite quail)): > 5.620 ppm  
End point: Acute oral toxicity
- LD50 (Apis mellifera (bees)): > 200 µg/bee  
End point: Acute oral toxicity
- LD50 (Apis mellifera (bees)): > 200 µg/bee  
End point: Acute contact toxicity

**D-Glucopyranose, oligomers, decyl octyl glycosides:**

- Toxicity to fish : LC0 (Danio rerio (zebra fish)): 59,3 mg/l  
Exposure time: 96 h  
Test Type: semi-static test
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic : EC50 (Desmodesmus subspicatus (green algae)): 21 mg/l

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|  |   |   |
|--|---|---|
| plants   |   | Exposure time: 72 h<br>Test Type: static test   |
| Toxicity to fish (Chronic toxicity)                                    | : | NOEC (Danio rerio (zebra fish)): 1,8 mg/l<br>Exposure time: 28 d<br>Method: OECD Test Guideline 204<br>Remarks: Based on data from similar materials                                |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | LOEC (Daphnia magna (Water flea)): 2 mg/l<br>Exposure time: 21 d<br>Test Type: semi-static test<br>Method: OECD Test Guideline 202<br>Remarks: Based on data from similar materials |
| Toxicity to microorganisms   | : | EC50 (Pseudomonas putida): > 560 mg/l<br>Exposure time: 6 h<br>Test Type: Growth inhibition   |
| Toxicity to soil dwelling organisms                                    | : | LC0 (Eisenia fetida (earthworms)): >= 654 mg/kg<br>Exposure time: 14 d<br>Method: OECD Test Guideline 207<br>Remarks: Based on data from similar materials                          |

### Persistence and degradability

#### Components:

##### **silica gel:**

|                  |   |  |
|------------------|---|--|
| Biodegradability | : | Result: Not biodegradable<br>Remarks: Based on data from similar materials |
|------------------|---|--|

##### **carfentrazone-ethyl (ISO):**

|                  |   |                                    |
|------------------|---|------------------------------------|
| Biodegradability | : | Result: Not readily biodegradable. |
|------------------|---|------------------------------------|

##### **D-Glucopyranose, oligomers, decyl octyl glycosides:**

|                  |   |   |
|------------------|---|---|
| Biodegradability | : | Inoculum: activated sludge, non-adapted<br>Result: Readily biodegradable.<br>Method: OECD Test Guideline 301E |
|------------------|---|---|

### Bioaccumulative potential

#### Components:

##### **silica gel:**

|                 |   |  |
|-----------------|---|--|
| Bioaccumulation | : | Bioconcentration factor (BCF): 3,16<br>Remarks: Based on data from similar materials |
|-----------------|---|--|

##### **carfentrazone-ethyl (ISO):**

|                 |   |  |
|-----------------|---|--|
| Bioaccumulation | : | Species: Fish<br>Bioconcentration factor (BCF): 176<br>Remarks: See section 9 for octanol-water partition coefficient. |
|-----------------|---|--|



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### D-Glucopyranose, oligomers, decyl octyl glycosides:

Partition coefficient: n-octanol/water : log Pow: 1,72 (40 °C)  
pH: 6,5  
Remarks: Based on data from similar materials

### Mobility in soil

#### Components:

##### carfentrazone-ethyl (ISO):

Distribution among environmental compartments : Remarks: Mobile in soils

### Other adverse effects

#### Product:

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

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : 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 containers should be taken to an approved waste handling site for recycling or disposal.

Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

## 14. TRANSPORT INFORMATION

### International Regulations

#### UNRTDG

UN number : UN 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Carfentrazone-ethyl)  
Class : 9  
Subsidiary risk : ENVIRONM.  
Packing group : III  
Labels : 9 (ENVIRONM.)

#### IATA-DGR

UN/ID No. : UN 3077

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Proper shipping name : Environmentally hazardous substance, solid, n.o.s. (Carfentrazone-ethyl)  
Class : 9  
Packing group : III  
Labels : Miscellaneous  
Packing instruction (cargo aircraft) : 956  
Packing instruction (passenger aircraft) : 956  
Environmentally hazardous : yes

### IMDG-Code

UN number : UN 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Carfentrazone-ethyl)  
Class : 9  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
Marine pollutant : yes

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### 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.

## 15. REGULATORY INFORMATION

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

Minister of Industry Regulation No. 23/M-IND/PER/4/2013 concerning the Revision of Minister of Industry Regulation No. 87/M-IND/PER/9/2009 concerning Globally Harmonized System of Classification and Labelling of Chemicals.

### Regulation of the Minister of Health No. 472 of 1996 on the Safeguarding of Substances Hazardous to Health

Hazardous substances that must be registered : Not applicable

### Government Regulation No. 74 of 2001 on the Management of Hazardous and Toxic Substances

Hazardous substances approved for use : Not applicable

Prohibited substances : Not applicable

Restricted substances : Not applicable

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### Regulation of the Minister of Trade No. 44 of 2009 on Procurement, Distribution and Supervision of Hazardous Materials

Type of Hazardous Materials Restricted to Import, : Not applicable  
Distribution and Supervision

### The ingredients 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.<br><br>ETHYL (RS)-2-CHLORO-3-{2-CHLORO-5-[4-(DIFLUOROMETHYL)-4,5-DIHYDRO-3-METHYL-5-OXO-1H-1,2,4-TRIAZOL-1-YL]-4-FLUOROPHENYL}PROPIONATE |
| ENCS  | : Not in compliance with the inventory   |
| ISHL  | : Not in compliance with the inventory   |
| KECI  | : On the inventory, or 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   |
| TECI  | : Not in compliance with the inventory   |

## 16. OTHER INFORMATION

|               |              |
|---------------|--------------|
| Revision Date | : 2022/08/15 |
| Date format   | : yyyy/mm/dd |

### Full text of other abbreviations

|              |   |
|--------------|---|
| ACGIH        | : USA. ACGIH Threshold Limit Values (TLV) |
| ID OEL       | : Indonesia. Occupational Exposure Limits |
| ACGIH / TWA  | : 8-hour, time-weighted average           |
| ID OEL / NAB | : Long term exposure limit                |

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule;

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ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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