

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



## Fluralaner Solid Formulation

Version  
13.0

Revision Date:  
2025/10/02

SDS Number:  
401062-00032

Date of last issue: 2025/07/31  
Date of first issue: 2015/12/10

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Fluralaner Solid Formulation

Other means of identification : Bravecto chew (A011019)  
BRAVECTO 1000 MG FLURALANER CHEWABLE TABLETS  
FOR LARGE DOGS (68870)  
BRAVECTO 112.5 MG FLURALANER CHEWABLE TABLETS  
FOR VERY SMALL DOGS (68867)  
BRAVECTO 1400 MG FLURALANER CHEWABLE TABLETS  
FOR VERY LARGE DOGS (68873)  
BRAVECTO 1-MONTH 100 MG FLURALANER CHEWABLE  
TABLETS FOR SMALL DOGS (87862)  
BRAVECTO 1-MONTH 200 MG FLURALANER CHEWABLE  
TABLETS FOR MEDIUM DOGS (87861)  
BRAVECTO 1-MONTH 400 MG FLURALANER CHEWABLE  
TABLETS FOR LARGE DOGS (87860)  
BRAVECTO 1-MONTH 45 MG FLURALANER CHEWABLE  
TABLETS FOR VERY SMALL DOGS (87863)  
BRAVECTO 1-MONTH 560 MG FLURALANER CHEWABLE  
TABLETS FOR VERY LARGE DOGS (87859)  
BRAVECTO 250 MG FLURALANER CHEWABLE TABLETS  
FOR SMALL DOGS (68872)  
BRAVECTO 500 MG FLURALANER CHEWABLE TABLETS  
FOR MEDIUM DOGS (68871)

#### Manufacturer or supplier's details

Company : MSD

Address : No. 485 Jing Tai Road  
Pu Tuo District - Shanghai - China 200331

Telephone : +1-908-740-4000

Emergency telephone number : 86-571-87268110

E-mail address : EHSDATASTEWARD@msd.com

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

Recommended use : Veterinary product

Restrictions on use : Not applicable

### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

Appearance : tablet, pellets

Colour : light brown

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|  |                     |
|--|---------------------|
| <b>Odour</b>   | : No data available |
| Causes mild skin irritation. Suspected of damaging the unborn child. Very toxic to aquatic life with long lasting effects. |                     |

### GHS Classification

|                                    |              |
|------------------------------------|--------------|
| Skin corrosion/irritation          | : Category 3 |
| Reproductive toxicity              | : Category 2 |
| Long-term (chronic) aquatic hazard | : Category 1 |

### GHS label elements

|                          |  |
|--------------------------|--|
| Hazard pictograms        | :    |
| Signal word              | : Warning  |
| Hazard statements        | : H316 Causes mild skin irritation.<br>H361d Suspected of damaging the unborn child.<br>H410 Very toxic to aquatic life with long lasting effects.   |
| Precautionary statements | :<br><b>Prevention:</b><br>P203 Obtain, read and follow all safety instructions before use.<br>P273 Avoid release to the environment.<br>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.<br><b>Response:</b><br>P318 IF exposed or concerned, get medical advice.<br>P332 + P317 If skin irritation occurs: Get medical help.<br>P391 Collect spillage.<br><b>Storage:</b><br>P405 Store locked up.<br><b>Disposal:</b><br>P501 Dispose of contents/ container to an approved waste disposal plant. |

### Physical and chemical hazards

Not classified based on available information.

### Health hazards

Causes mild skin irritation. Suspected of damaging the unborn child.

### Environmental hazards

Very toxic to aquatic life with long lasting effects.

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### Additional Labelling

The following percentage of the mixture consists of ingredient(s) with unknown acute oral toxicity: 2 %

The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity: 2 %

The following percentage of the mixture consists of ingredient(s) with unknown acute inhalation toxicity: 2 %

### 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) |
|-------------------------|-------------|-----------------------|
| Starch                  | 9005-25-8   | >= 10 -< 25           |
| Fluralaner              | 864731-61-3 | >= 5 -< 15            |
| Soya oil                | 8001-22-7   | >= 10 -<= 20          |
| Sucrose                 | 57-50-1     | >= 5 -<= 10           |
| Sodium dodecyl sulphate | 151-21-3    | >= 1 -<= 5            |

## 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.  
Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with plenty of water.  
Remove contaminated clothing and shoes.  
Get medical attention.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.

In case of eye contact : Flush eyes with water as a precaution.  
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.  
Get medical attention.  
Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed : Causes mild skin irritation.  
Suspected of damaging the unborn child.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Notes to physician : Treat symptomatically and supportively.

## 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray  
Alcohol-resistant foam

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Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : None known.

Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides  
Chlorine compounds  
Fluorine compounds  
Sulphur oxides  
Metal oxides  
Sodium oxides

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Use water spray to cool unopened containers.  
Remove undamaged containers from fire area if it is safe to do so.  
Evacuate area.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

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## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.  
Prevent further leakage or spillage if safe to do so.  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.  
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

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## 7. HANDLING AND STORAGE

### Handling

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**Technical measures**

Local/Total ventilation : Use only with adequate ventilation.

Advice on safe handling : Do not get on skin or clothing.  
Avoid breathing vapours.  
Do not swallow.  
Avoid contact with eyes.  
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment  
Take care to prevent spills, waste and minimize release to the environment.

Avoidance of contact : Oxidizing agents

**Storage**

Conditions for safe storage : Keep in properly labelled containers.  
Store locked up.  
Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:  
Strong oxidizing agents

Packaging material : Unsuitable material: None known.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

| Components                | CAS-No.     | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis    |
|---------------------------|-------------|-------------------------------|--|----------|
| Starch                    | 9005-25-8   | TWA                           | 10 mg/m <sup>3</sup>                           | ACGIH    |
| Fluralaner                | 864731-61-3 | TWA                           | 100 µg/m <sup>3</sup> (OEB 2)                  | Internal |
| Further information: Skin |             |                               |  |          |
| Sucrose                   | 57-50-1     | TWA                           | 1000 µg/100 cm <sup>2</sup>                    | Internal |
|                           |             |                               | 10 mg/m <sup>3</sup>                           | ACGIH    |

**Engineering measures**

: Use feasible engineering controls to minimize exposure to compound.  
All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.

### Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Combined particulates and organic vapour type

Eye/face protection : Wear safety glasses with side shields or goggles.  
If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.  
Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or

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|                          |  |
|--------------------------|--|
|                          | aerosols.  |
| Skin and body protection | : Work uniform or laboratory coat.   |
| Hand protection          |  |
| Material                 | : Chemical-resistant gloves  |
| Hygiene measures         | : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.<br>When using do not eat, drink or smoke.<br>Wash contaminated clothing before re-use.<br>The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|  |   |
|--|---|
| Appearance                                       | : tablet, pellets                         |
| Colour   | : light brown                             |
| Odour  | : No data available                       |
| Odour Threshold                                  | : No data available                       |
| pH   | : No data available                       |
| Melting point/freezing point                     | : No data available                       |
| Initial boiling point and boiling range          | : No data available                       |
| Flash point                                      | : Not applicable                          |
| Evaporation rate                                 | : No data available                       |
| Flammability (solid, gas)                        | : Not classified as a flammability hazard |
| Flammability (liquids)                           | : No data available                       |
| Upper explosion limit / Upper flammability limit | : No data available                       |
| Lower explosion limit / Lower flammability limit | : No data available                       |
| Vapour pressure                                  | : No data available                       |
| Relative vapour density                          | : No data available                       |
| Relative density                                 | : No data available                       |
| Density  | : No data available                       |

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|  |  |
|--|--|
| Solubility(ies)                        |  |
| Water solubility                       | : No data available  |
| Partition coefficient: n-octanol/water | : Not applicable   |
| Auto-ignition temperature              | : No data available  |
| Decomposition temperature              | : No data available  |
| Viscosity                              |  |
| Viscosity, kinematic                   | : No data available  |
| Explosive properties                   | : Not explosive  |
| Oxidizing properties                   | : The substance or mixture is not classified as oxidizing. |
| Particle characteristics               |  |
| Particle size                          | : No data available  |

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## 10. STABILITY AND REACTIVITY

|                                    |  |
|------------------------------------|--|
| Reactivity                         | : Not classified as a reactivity hazard.         |
| Chemical stability                 | : Stable under normal conditions.                |
| Possibility of hazardous reactions | : Can react with strong oxidizing agents.        |
| Conditions to avoid                | : None known.                                    |
| Incompatible materials             | : Oxidizing agents                               |
| Hazardous decomposition products   | : No hazardous decomposition products are known. |

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## 11. TOXICOLOGICAL INFORMATION

|                 |  |
|-----------------|--|
| Exposure routes | : Skin contact<br>Ingestion<br>Eye contact |
|-----------------|--|

### Acute toxicity

Not classified based on available information.

#### Product:

|                     |  |
|---------------------|--|
| Acute oral toxicity | : Acute toxicity estimate: > 5,000 mg/kg<br>Method: Calculation method |
|---------------------|--|

#### Components:

##### **Starch:**

|                       |                                |
|-----------------------|--------------------------------|
| Acute oral toxicity   | : LD50 (Rat): > 5,000 mg/kg    |
| Acute dermal toxicity | : LD50 (Rabbit): > 2,000 mg/kg |

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### Fluralaner:

|                       |   |   |
|-----------------------|---|---|
| Acute oral toxicity   | : | LD50 (Rat): > 2,000 mg/kg<br>Remarks: No mortality observed at this dose.<br>No significant adverse effects were reported |
| Acute dermal toxicity | : | LD50 (Rat): > 2,000 mg/kg<br>Remarks: No significant adverse effects were reported  |

### Sucrose:

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

### Sodium dodecyl sulphate:

|                       |   |   |
|-----------------------|---|---|
| Acute oral toxicity   | : | LD50 (Rat): 1,200 mg/kg<br>Method: OECD Test Guideline 401  |
| Acute dermal toxicity | : | LD50 (Rat): > 2,000 mg/kg<br>Method: OECD Test Guideline 402<br>Remarks: Based on data from similar materials |

### Skin corrosion/irritation

Causes mild skin irritation.

### Components:

#### Fluralaner:

|         |   |                    |
|---------|---|--------------------|
| Species | : | Rabbit             |
| Result  | : | No skin irritation |

#### Sodium dodecyl sulphate:

|         |   |                 |
|---------|---|-----------------|
| Species | : | Rabbit          |
| Result  | : | Skin irritation |

### Serious eye damage/eye irritation

Not classified based on available information.

### Components:

#### Starch:

|         |   |                   |
|---------|---|-------------------|
| Species | : | Rabbit            |
| Result  | : | No eye irritation |

#### Fluralaner:

|         |   |                     |
|---------|---|---------------------|
| Species | : | Rabbit              |
| Result  | : | Mild eye irritation |

#### Sodium dodecyl sulphate:

|         |   |                                 |
|---------|---|---------------------------------|
| Species | : | Rabbit                          |
| Result  | : | Irreversible effects on the eye |
| Method  | : | OECD Test Guideline 405         |

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### Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

#### Respiratory sensitisation

Not classified based on available information.

#### Components:

##### Starch:

|                 |   |                   |
|-----------------|---|-------------------|
| Test Type       | : | Maximisation Test |
| Exposure routes | : | Skin contact      |
| Species         | : | Guinea pig        |
| Result          | : | negative          |

##### Fluralaner:

|                 |   |                        |
|-----------------|---|------------------------|
| Test Type       | : | Maximisation Test      |
| Exposure routes | : | Dermal                 |
| Species         | : | Guinea pig             |
| Result          | : | Not a skin sensitizer. |

##### Sodium dodecyl sulphate:

|                 |   |                   |
|-----------------|---|-------------------|
| Test Type       | : | Maximisation Test |
| Exposure routes | : | Skin contact      |
| Species         | : | Guinea pig        |
| Result          | : | negative          |

Remarks : Based on data from similar materials

#### Germ cell mutagenicity

Not classified based on available information.

#### Components:

##### Starch:

|                       |   |  |
|-----------------------|---|--|
| Genotoxicity in vitro | : | Test Type: Bacterial reverse mutation assay (AMES)<br>Result: negative |
|-----------------------|---|--|

##### Fluralaner:

|                       |   |  |
|-----------------------|---|--|
| Genotoxicity in vitro | : | Test Type: Bacterial reverse mutation assay (AMES)<br>Result: negative |
|-----------------------|---|--|

Test Type: Mouse Lymphoma  
Result: negative

Test Type: Chromosomal aberration  
Result: negative

|                      |   |  |
|----------------------|---|--|
| Genotoxicity in vivo | : | Test Type: Micronucleus test<br>Species: Mouse |
|----------------------|---|--|

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Cell type: Bone marrow  
Application Route: Oral  
Result: negative

### Sucrose:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Result: negative

### Sodium dodecyl sulphate:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative

Test Type: In vitro mammalian cell gene mutation test  
Result: negative

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)  
Species: Mouse  
Application Route: Ingestion  
Result: negative

### Carcinogenicity

Not classified based on available information.

### Components:

#### Fluralaner:

Carcinogenicity - Assessment : No data available

#### Sodium dodecyl sulphate:

Species : Rat  
Application Route : Ingestion  
Exposure time : 2 Years  
Method : OECD Test Guideline 453  
Result : negative  
Remarks : Based on data from similar materials

### Reproductive toxicity

Suspected of damaging the unborn child.

### Components:

#### Fluralaner:

Effects on fertility : Test Type: Two-generation study  
Species: Rat  
Application Route: Oral  
General Toxicity - Parent: NOAEL: 50 mg/kg body weight  
General Toxicity F1: LOAEL: 100 mg/kg body weight  
Result: No effects on fertility, Postimplantation loss., Adverse

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neonatal effects.

Effects on foetal development : Test Type: Development  
Species: Rat  
Application Route: Oral  
Developmental Toxicity: NOAEL: 100 mg/kg body weight  
Result: Embryotoxic effects and adverse effects on the offspring were detected only at high maternally toxic doses, No teratogenic effects

Test Type: Development  
Species: Rabbit  
Application Route: Oral  
Developmental Toxicity: NOAEL: 10 mg/kg body weight  
Result: Skeletal malformations, Visceral malformations  
Remarks: Maternal toxicity observed.

Test Type: Development  
Species: Rabbit  
Application Route: Dermal  
Developmental Toxicity: NOAEL: 100 mg/kg body weight  
Result: Skeletal malformations

Reproductive toxicity - Assessment : Suspected of damaging the unborn child.

### Sodium dodecyl sulphate:

Effects on fertility : Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 416  
Result: negative  
Remarks: Based on data from similar materials

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

### STOT - single exposure

Not classified based on available information.

### STOT - repeated exposure

Not classified based on available information.

### Repeated dose toxicity

#### Components:

##### Starch:

Species : Rat  
NOAEL : >= 2,000 mg/kg  
Application Route : Skin contact

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|               |   |                         |
|---------------|---|-------------------------|
| Exposure time | : | 28 Days                 |
| Method        | : | OECD Test Guideline 410 |

### Fluralaner:

|                   |   |  |
|-------------------|---|--|
| Species           | : | Dog  |
| NOAEL             | : | 1 mg/kg                                      |
| Application Route | : | Oral   |
| Exposure time     | : | 52 Weeks                                     |
| Target Organs     | : | Liver  |
| Remarks           | : | No significant adverse effects were reported |

|                   |   |                     |
|-------------------|---|---------------------|
| Species           | : | Rat                 |
| LOAEL             | : | 400 mg/kg           |
| Application Route | : | Oral                |
| Exposure time     | : | 90 Days             |
| Target Organs     | : | Liver, thymus gland |

|                   |   |  |
|-------------------|---|--|
| Species           | : | Rat  |
| NOAEL             | : | 500 mg/kg                                    |
| Application Route | : | Dermal                                       |
| Exposure time     | : | 90 Days                                      |
| Target Organs     | : | Liver  |
| Remarks           | : | No significant adverse effects were reported |

### Soya oil:

|                   |   |             |
|-------------------|---|-------------|
| Species           | : | Rat         |
| NOAEL             | : | 4,000 mg/kg |
| Application Route | : | Ingestion   |
| Exposure time     | : | 90 h        |

### Sodium dodecyl sulphate:

|                   |   |                                      |
|-------------------|---|--------------------------------------|
| Species           | : | Rat                                  |
| NOAEL             | : | 488 mg/kg                            |
| Application Route | : | Ingestion                            |
| Exposure time     | : | 90 Days                              |
| Remarks           | : | Based on data from similar materials |

### Aspiration toxicity

Not classified based on available information.

### Components:

#### Fluralaner:

Not applicable

### Experience with human exposure

### Components:

#### Fluralaner:

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|              |                                      |
|--------------|--------------------------------------|
| Skin contact | : Remarks: May irritate skin.        |
| Eye contact  | : Remarks: May cause eye irritation. |

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### Fluralaner:

|  |   |
|--|---|
| Toxicity to fish   | : LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.0488 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203<br>Remarks: No toxicity at the limit of solubility          |
| Toxicity to daphnia and other aquatic invertebrates                    | : EC50 (Daphnia magna (Water flea)): > 0.015 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202<br>Remarks: No toxicity at the limit of solubility                    |
| Toxicity to algae/aquatic plants                                       | : NOEC (Pseudokirchneriella subcapitata (green algae)): >= 0.08 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br>Remarks: No toxicity at the limit of solubility |
| Toxicity to fish (Chronic toxicity)                                    | : NOEC (Zebrafish): >= 0.049 mg/l<br>Exposure time: 21 d<br>Method: OECD Test Guideline 204<br>Remarks: No toxicity at the limit of solubility                                    |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : NOEC (Daphnia magna (Water flea)): 0.0736 µg/l<br>Exposure time: 21 d<br>Method: OECD Test Guideline 211  |
| M-Factor (Chronic aquatic toxicity)                                    | : 1,000   |

##### Sodium dodecyl sulphate:

|   |  |
|---|--|
| Toxicity to fish                                    | : LC50 (Pimephales promelas (fathead minnow)): 29 mg/l<br>Exposure time: 96 h  |
| Toxicity to daphnia and other aquatic invertebrates | : EC50 (Ceriodaphnia dubia (water flea)): 5.55 mg/l<br>Exposure time: 48 h   |
| Toxicity to algae/aquatic plants                    | : ErC50 (Desmodesmus subspicatus (green algae)): > 120 mg/l<br>Exposure time: 72 h<br><br>NOEC (Desmodesmus subspicatus (green algae)): 30 mg/l<br>Exposure time: 72 h |
| Toxicity to fish (Chronic toxicity)                 | : NOEC (Pimephales promelas (fathead minnow)): >= 1.357 mg/l   |

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Exposure time: 42 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Ceriodaphnia dubia (water flea)): 0.88 mg/l  
Exposure time: 7 d

Toxicity to microorganisms : EC50: 135 mg/l  
Exposure time: 3 h

### Persistence and degradability

#### Components:

##### **Sodium dodecyl sulphate:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 95 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B

### Bioaccumulative potential

#### Components:

##### **Fluralaner:**

Bioaccumulation : Species: Zebrafish  
Bioconcentration factor (BCF): 79.4  
Method: OECD Test Guideline 305

Partition coefficient: n-octanol/water : log Pow: 4.5

##### **Soya oil:**

Partition coefficient: n-octanol/water : log Pow: > 4  
Remarks: Calculation

##### **Sucrose:**

Partition coefficient: n-octanol/water : Pow: < 1

##### **Sodium dodecyl sulphate:**

Partition coefficient: n-octanol/water : log Pow: 0.83

### Mobility in soil

#### Components:

##### **Fluralaner:**

Distribution among environmental compartments : log Koc: 4.1

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### Other adverse effects

#### Components:

##### **Fluralaner:**

Results of PBT and vPvB assessment : Not persistent, bioaccumulative, and toxic (PBT).

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## 13. DISPOSAL CONSIDERATIONS

#### **Disposal methods**

Waste from residues : Do not dispose of waste into sewer.  
Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
If not otherwise specified: Dispose of as unused product.

---

## 14. TRANSPORT INFORMATION

#### International Regulations

##### **UNRTDG**

UN number : UN 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Fluralaner)  
Class : 9  
Packing group : III  
Labels : 9  
Environmentally hazardous : yes

##### **IATA-DGR**

UN/ID No. : UN 3077  
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.  
(Fluralaner)  
Class : 9  
Packing group : III  
Labels : Miscellaneous  
Packing instruction (cargo aircraft) : 956  
Packing instruction (passenger aircraft) : 956  
Environmentally hazardous : yes  
Remarks : Above applies only to containers over 119 gallons (450 liters) in case of liquids, or 882 lbs. (400 kg) in case of solids.

##### **IMDG-Code**

UN number : UN 3077  
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Fluralaner)  
Class : 9  
Packing group : III  
Labels : 9

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|                 |                              |                             |   |
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|-----------------|------------------------------|-----------------------------|---|

|                  |   |  |
|------------------|---|--|
| EmS Code         | : | F-A, S-F   |
| Marine pollutant | : | yes  |
| Remarks          | : | Above applies only to containers over 119 gallons (450 liters) in case of liquids, or 882 lbs. (400 kg) in case of solids. |

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

Not applicable for product as supplied.

### National Regulations

#### GB 6944/12268

|                      |   |  |
|----------------------|---|--|
| UN number            | : | UN 3077  |
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.<br>(Fluralaner) |
| Class                | : | 9  |
| Packing group        | : | III  |
| Labels               | : | 9  |
| Marine pollutant     | : | no   |

### 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

### National regulatory information

#### Law on the Prevention and Control of Occupational Diseases

#### Regulations on Safety Management of Hazardous Chemicals

|                                  |   |   |
|----------------------------------|---|---|
| Catalogue of Hazardous Chemicals | : | This product is not listed in the catalogue of hazardous chemicals, but it meets the definition of hazardous chemicals and its principles of determination. |
|----------------------------------|---|---|

|   |   |            |
|---|---|------------|
| Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218) | : | Not listed |
|---|---|------------|

|  |   |            |
|--|---|------------|
| Hazardous Chemicals for Priority Management under SAWs | : | Not listed |
|--|---|------------|

|   |   |            |
|---|---|------------|
| Catalogue of Specially Controlled Hazardous Chemicals | : | Not listed |
|---|---|------------|

|                              |   |            |
|------------------------------|---|------------|
| List of Explosive Precursors | : | Not listed |
|------------------------------|---|------------|

#### Regulations on Labour Protection in Workplaces where Toxic Substances are Used

|                                     |   |            |
|-------------------------------------|---|------------|
| Catalogue of Highly Toxic Chemicals | : | Not listed |
|-------------------------------------|---|------------|

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### Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import and Export : Not listed

### Regulation on the Administration of Precursor Chemicals

Catalogue and Classification of Precursor Chemicals : Not listed

### Yangtze River Protection Law

This product does not contain any dangerous chemicals prohibited for inland river transport.

### Regulations of Ozone Depleting Substances Management

List of Controlled Ozone Depleting Substances Import and Export : Not listed

List of Controlled Ozone Depleting Substances : Not listed

### Environmental Protection Law

List of Priority Controlled Chemicals : Not listed

List of Key Controlled New Pollutants : Not listed

List of Toxic and Hazardous Water Pollutants : Not listed

List of Toxic and Hazardous Air Pollutants : Not listed

List of Toxic and Hazardous Soil Pollutants : Not listed

### Measures for the Administration of Non-Medical Use of Narcotic Drugs and Psychotropic Substances

Catalogue of Controlled Narcotic Drugs and Psychotropic Substances with Non-Medical Use : Not listed

### Measures for the Administration on Import and Export Licenses for Dual-Use Items and Technologies

Catalogue for Dual-Use Items and Technologies : Listed

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

AICS : not determined

CA. DSL : not determined

IECSC : not determined

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## 16. OTHER INFORMATION

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Further information

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Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format : yyyy/mm/dd

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA : 8-hour, time-weighted average

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; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonised 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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; MERCOSUR - The Agreement for the Facilitation of the Transport of Dangerous Goods; 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 - Organisation 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

### Disclaimer

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

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Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

CN / EN