

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



## Lufenuron Premix Formulation

|         |                |                |                                 |
|---------|----------------|----------------|---------------------------------|
| Version | Revision Date: | SDS Number:    | Date of last issue: 2025/04/14  |
| 2.1     | 2025/05/09     | 11441532-00004 | Date of first issue: 2024/09/23 |

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Lufenuron Premix Formulation

Product code : IMVIXA Premix

#### 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 | : powder                |
| Colour     | : White to light yellow |
| Odour      | : No data available     |

May cause an allergic skin reaction. May damage the unborn child. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

#### GHS Classification

Skin sensitisation : Category 1

Reproductive toxicity : Category 1B

Specific target organ toxicity - repeated exposure : Category 1

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

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### GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: H317 May cause an allergic skin reaction.  
H360D May damage the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

#### Prevention:

P203 Obtain, read and follow all safety instructions before use.  
P260 Do not breathe dust.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

#### Response:

P318 IF exposed or concerned, get medical advice.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P333 + P317 If skin irritation or rash occurs: Get medical help.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P391 Collect spillage.

#### Storage:

P405 Store locked up.

#### Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

### Physical and chemical hazards

Not classified based on available information.

### Health hazards

May cause an allergic skin reaction. May damage the unborn child. Causes damage to organs through prolonged or repeated exposure.

### Environmental hazards

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

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### Other hazards which do not result in classification

Dust contact with the eyes can lead to mechanical irritation.  
Contact with dust can cause mechanical irritation or drying of the skin.  
May form explosive dust-air mixture during processing, handling or other means.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Components

| Chemical name   | CAS-No.     | Concentration (% w/w) |
|-----------------|-------------|-----------------------|
| Starch          | 9005-25-8   | >= 70 -< 90           |
| Lufenuron (ISO) | 103055-07-8 | >= 10 -< 20           |

### 4. FIRST AID MEASURES

|                                                             |                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General advice                                              | : In the case of accident or if you feel unwell, seek medical advice immediately.<br>When symptoms persist or in all cases of doubt seek medical advice.                                                                                                                               |
| If inhaled                                                  | : If inhaled, remove to fresh air.<br>Get medical attention.                                                                                                                                                                                                                           |
| In case of skin contact                                     | : In case of contact, immediately flush skin with soap and plenty of water.<br>Remove contaminated clothing and shoes.<br>Get medical attention.<br>Wash clothing before reuse.<br>Thoroughly clean shoes before reuse.                                                                |
| In case of eye contact                                      | : If in eyes, rinse well with water.<br>Get medical attention if irritation develops and persists.                                                                                                                                                                                     |
| If swallowed                                                | : If swallowed, DO NOT induce vomiting.<br>Get medical attention.<br>Rinse mouth thoroughly with water.                                                                                                                                                                                |
| Most important symptoms and effects, both acute and delayed | : Contact with dust can cause mechanical irritation or drying of the skin.<br>Dust contact with the eyes can lead to mechanical irritation.<br>May cause an allergic skin reaction.<br>May damage the unborn child.<br>Causes damage to organs through prolonged or repeated exposure. |
| 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  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

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|                                               |                                                                                                                                                                                                                                                   |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unsuitable extinguishing media                | : None known.                                                                                                                                                                                                                                     |
| Specific hazards during fire-fighting         | : Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.<br>Exposure to combustion products may be a hazard to health.                   |
| Hazardous combustion products                 | : Carbon oxides<br>Nitrogen oxides (NOx)                                                                                                                                                                                                          |
| Specific extinguishing methods                | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.<br>Use water spray to cool unopened containers.<br>Remove undamaged containers from fire area if it is safe to do so.<br>Evacuate area. |
| Special protective equipment for firefighters | : In the event of fire, wear self-contained breathing apparatus.<br>Use personal protective equipment.                                                                                                                                            |

### 6. ACCIDENTAL RELEASE MEASURES

|                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | : Use personal protective equipment.<br>Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Environmental precautions                                           | : Avoid release to the environment.<br>Prevent further leakage or spillage if safe to do so.<br>Retain and dispose of contaminated wash water.<br>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.<br>Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).<br>Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.<br>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.<br>Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. |

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### 7. HANDLING AND STORAGE

#### Handling

Technical measures : Static electricity may accumulate and ignite suspended dust causing an explosion.  
Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.

Advice on safe handling : Do not get on skin or clothing.  
Do not breathe dust.  
Do not swallow.  
Avoid contact with eyes.  
Wash skin thoroughly after handling.  
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment  
Keep container tightly closed.  
Minimize dust generation and accumulation.  
Keep container closed when not in use.  
Keep away from heat and sources of ignition.  
Take precautionary measures against static discharges.  
Do not eat, drink or smoke when using this product.  
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.  
Keep tightly closed.  
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<br>(Form of exposure) | Control parameters / Permissible concentration | Basis    |
|---------------------------|-------------|----------------------------------|------------------------------------------------|----------|
| Starch                    | 9005-25-8   | TWA                              | 10 mg/m <sup>3</sup>                           | ACGIH    |
| Lufenuron (ISO)           | 103055-07-8 | TWA                              | 200 µg/m <sup>3</sup> (OEB 2)                  | Internal |
| Further information: DSEN |             |                                  |                                                |          |
|                           |             | Wipe limit                       | 100 µg/100 cm <sup>2</sup>                     | Internal |

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**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** : Particulates 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 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.  
When using do not eat, drink or smoke.  
Contaminated work clothing should not be allowed out of the workplace.  
Wash contaminated clothing before re-use.  
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                              | : powder                |
| Colour                                  | : White to light yellow |
| 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     |

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|                                                  |   |                                                                                 |
|--------------------------------------------------|---|---------------------------------------------------------------------------------|
| Flash point                                      | : | Not applicable                                                                  |
| Evaporation rate                                 | : | Not applicable                                                                  |
| Flammability (solid, gas)                        | : | May form explosive dust-air mixture during processing, handling or other means. |
| Flammability (liquids)                           | : | Not applicable                                                                  |
| Upper explosion limit / Upper flammability limit | : | No data available                                                               |
| Lower explosion limit / Lower flammability limit | : | No data available                                                               |
| Vapour pressure                                  | : | Not applicable                                                                  |
| Relative vapour density                          | : | Not applicable                                                                  |
| Relative density                                 | : | No data available                                                               |
| Density                                          | : | No data available                                                               |
| 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                             | : | Not applicable                                                                  |
| Explosive properties                             | : | Not explosive                                                                   |
| Oxidizing properties                             | : | The substance or mixture is not classified as oxidizing.                        |
| Molecular weight                                 | : | No data available                                                               |
| Particle characteristics                         |   |                                                                                 |
| Particle size                                    | : | No data available                                                               |

### 10. STABILITY AND REACTIVITY

|                                |   |                                                             |
|--------------------------------|---|-------------------------------------------------------------|
| Reactivity                     | : | Not classified as a reactivity hazard.                      |
| Chemical stability             | : | Stable under normal conditions.                             |
| Possibility of hazardous reac- | : | May form explosive dust-air mixture during processing, han- |

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|                                  |                                                                  |
|----------------------------------|------------------------------------------------------------------|
| tions                            | dling or other means.<br>Can react with strong oxidizing agents. |
| Conditions to avoid              | : Heat, flames and sparks.<br>Avoid dust formation.              |
| Incompatible materials           | : Oxidizing agents                                               |
| Hazardous decomposition products | : No hazardous decomposition products are known.                 |

### 11. TOXICOLOGICAL INFORMATION

|                 |                                                          |
|-----------------|----------------------------------------------------------|
| Exposure routes | : Inhalation<br>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 |
| Acute dermal 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 |

##### Lufenuron (ISO):

|                           |                                                            |
|---------------------------|------------------------------------------------------------|
| Acute oral toxicity       | : LD50 (Rat): > 2,000 mg/kg<br>LD50 (Mouse): > 2,000 mg/kg |
| Acute inhalation toxicity | : LC50 (Rat): 2,350 mg/m3<br>Test atmosphere: dust/mist    |
| Acute dermal toxicity     | : LD50 (Rabbit): > 2,000 mg/kg                             |

#### Skin corrosion/irritation

Not classified based on available information.

#### Components:

##### Lufenuron (ISO):

|         |          |
|---------|----------|
| Species | : Rabbit |
|---------|----------|

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Method : Draize Test  
Result : No skin irritation

### Serious eye damage/eye irritation

Not classified based on available information.

#### Components:

##### Starch:

Species : Rabbit  
Result : No eye irritation

##### Lufenuron (ISO):

Species : Rabbit  
Result : No eye irritation  
Method : Draize Test

### Respiratory or skin sensitisation

#### Skin sensitisation

May cause an allergic skin reaction.

#### Respiratory sensitisation

Not classified based on available information.

#### Components:

##### Starch:

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

##### Lufenuron (ISO):

Test Type : Maximisation Test  
Species : Guinea pig  
Assessment : May cause sensitisation by skin contact.  
Result : Sensitiser

### Germ cell mutagenicity

Not classified based on available information.

#### Components:

##### Starch:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative

##### Lufenuron (ISO):

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|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Genotoxicity in vitro               | : Test Type: Ames test<br>Result: negative<br><br>Test Type: Mouse Lymphoma<br>Test system: Chinese hamster cells<br>Result: negative<br><br>Test Type: Cytogenetic assay<br>Test system: Chinese hamster ovary cells<br>Result: negative<br><br>Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)<br>Test system: rat hepatocytes<br>Result: negative<br><br>Test system: Human lymphocytes<br>Result: negative |
| Genotoxicity in vivo                | : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)<br>Species: Mouse<br>Result: negative<br><br>Test Type: Unscheduled DNA synthesis test (UDS) in testicular cells<br>Species: Rat<br>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:

#### Lufenuron (ISO):

|                   |               |
|-------------------|---------------|
| Species           | : Rat         |
| Application Route | : Ingestion   |
| Exposure time     | : 18 month(s) |
| Result            | : negative    |

|                              |                                                                      |
|------------------------------|----------------------------------------------------------------------|
| Carcinogenicity - Assessment | : Weight of evidence does not support classification as a carcinogen |
|------------------------------|----------------------------------------------------------------------|

### Reproductive toxicity

May damage the unborn child.

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### Components:

#### **Lufenuron (ISO):**

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Effects on fertility               | : Test Type: Two-generation reproduction toxicity study<br>Species: Rat<br>Application Route: Oral<br>General Toxicity - Parent: NOAEL: 8.3 mg/kg wet weight<br>Early Embryonic Development: NOAEL: 20.9 mg/kg body weight<br>Result: Animal testing did not show any effects on fertility.                                                                                                                                                                                                                                            |
| Effects on foetal development      | : Test Type: Development<br>Species: Rat<br>Application Route: Oral<br>General Toxicity Maternal: NOAEL: 500 mg/kg body weight<br>Developmental Toxicity: NOAEL: 1,000 mg/kg body weight<br>Symptoms: No adverse effects<br>Remarks: No significant adverse effects were reported<br><br>Test Type: Fertility/early embryonic development<br>Species: Rat<br>Application Route: Ingestion<br>General Toxicity Maternal: NOAEL: 20.9 mg/kg body weight<br>Embryo-foetal toxicity: 8.3 mg/kg body weight<br>Result: foetal abnormalities |
| Reproductive toxicity - Assessment | : Clear evidence of adverse effects on development, based on animal experiments.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

#### **STOT - single exposure**

Not classified based on available information.

### Components:

#### **Lufenuron (ISO):**

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

#### **STOT - repeated exposure**

Causes damage to organs through prolonged or repeated exposure.

### Components:

#### **Lufenuron (ISO):**

|                 |                                                                                                    |
|-----------------|----------------------------------------------------------------------------------------------------|
| Exposure routes | : Oral                                                                                             |
| Target Organs   | : Central nervous system, Lungs, Liver, Stomach                                                    |
| Assessment      | : Shown to produce significant health effects in animals at concentrations of 10 mg/kg bw or less. |

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### Repeated dose toxicity

#### Components:

##### **Starch:**

|                   |                           |
|-------------------|---------------------------|
| Species           | : Rat                     |
| NOAEL             | : $\geq 2,000$ mg/kg      |
| Application Route | : Skin contact            |
| Exposure time     | : 28 Days                 |
| Method            | : OECD Test Guideline 410 |

##### **Lufenuron (ISO):**

|                   |                                            |
|-------------------|--------------------------------------------|
| Species           | : Rat                                      |
| NOAEL             | : 5.34 mg/kg                               |
| Application Route | : oral (feed)                              |
| Exposure time     | : 4 Months                                 |
| Target Organs     | : Central nervous system, digestive system |
| Symptoms          | : central nervous system effects           |

|                   |                                               |
|-------------------|-----------------------------------------------|
| Species           | : Rat                                         |
| NOAEL             | : 1.93 mg/kg                                  |
| Application Route | : oral (feed)                                 |
| Exposure time     | : 2 yr                                        |
| Symptoms          | : central nervous system effects, Convulsions |

|                   |                                               |
|-------------------|-----------------------------------------------|
| Species           | : Mouse                                       |
| NOAEL             | : 2.12 mg/kg                                  |
| Application Route | : oral (feed)                                 |
| Exposure time     | : 18 Months                                   |
| Target Organs     | : Central nervous system, Liver, Prostate     |
| Symptoms          | : central nervous system effects, Convulsions |

|                   |                                         |
|-------------------|-----------------------------------------|
| Species           | : Dog                                   |
| NOAEL             | : 7.02 mg/kg                            |
| Application Route | : oral (feed)                           |
| Exposure time     | : 1 yr                                  |
| Target Organs     | : Central nervous system, Liver, Lungs  |
| Symptoms          | : Convulsions, Fatality, Irregularities |

### Aspiration toxicity

Not classified based on available information.

### Experience with human exposure

#### Components:

##### **Lufenuron (ISO):**

|                     |                                                                          |
|---------------------|--------------------------------------------------------------------------|
| General Information | : Remarks: May be harmful if swallowed.<br>May cause neurotoxic effects. |
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### 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Components:

##### **Lufenuron (ISO):**

|                                                                        |                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity to fish                                                       | : LC50 (Oncorhynchus mykiss (rainbow trout)): > 73,100 µg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203<br><br>LC50 (Oncorhynchus mykiss (rainbow trout)): > 29,000 µg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203<br><br>LC50 (Oncorhynchus mykiss (rainbow trout)): 370 µg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203 |
| Toxicity to daphnia and other aquatic invertebrates                    | : EC50 (Americamysis): 0.042 µg/l<br>Exposure time: 96 h<br>Method: US-EPA OPPTS 850.1035<br><br>EC50 (Daphnia magna (Water flea)): 0.41 µg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202                                                                                                                                                                |
| Toxicity to algae/aquatic plants                                       | : EC50 (Raphidocelis subcapitata (freshwater green alga)): 209 µg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br><br>EC50 (Scenedesmus subspicatus): 17 µg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201                                                                                                                                 |
| M-Factor (Acute aquatic toxicity)                                      | : 10,000                                                                                                                                                                                                                                                                                                                                                               |
| Toxicity to fish (Chronic toxicity)                                    | : NOEC (Oncorhynchus mykiss (rainbow trout)): 80 µg/l<br>Exposure time: 33 d<br>Method: OECD Test Guideline 210<br><br>NOEC (Oncorhynchus mykiss (rainbow trout)): 20 µg/l<br>Exposure time: 359 d<br>Method: OECD Test Guideline 229                                                                                                                                  |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : NOEC (Daphnia magna (Water flea)): 8.38 µg/l<br>Exposure time: 21 d<br>Method: OECD Test Guideline 211<br><br>NOEC (Daphnia magna (Water flea)): 90 µg/l                                                                                                                                                                                                             |

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## Lufenuron Premix Formulation

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Exposure time: 21 d  
Method: OECD Test Guideline 211

NOEC (Chironomus riparius (harlequin fly)): 2 µg/l  
Exposure time: 21 d  
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 10

### Persistence and degradability

No data available

### Bioaccumulative potential

#### Components:

#### Lufenuron (ISO):

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)  
Bioconcentration factor (BCF): 28  
Method: OECD Test Guideline 305

Partition coefficient: n-octanol/water : log Pow: 5.12

### Mobility in soil

#### Components:

#### Lufenuron (ISO):

Distribution among environmental compartments : log Koc: 5.38  
Method: OECD Test Guideline 106

### Other adverse effects

No data available

## 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

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Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Lufenuron (ISO))

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.  
(Lufenuron (ISO))

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.  
(Lufenuron (ISO))

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.

### National Regulations

#### GB 6944/12268

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Lufenuron (ISO))

Class : 9

Packing group : III

Labels : 9

Marine pollutant : yes

### 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.

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### 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

##### 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

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

|       |                  |
|-------|------------------|
| AICS  | : not determined |
| DSL   | : not determined |
| IECSC | : not determined |

## 16. OTHER INFORMATION

Revision Date : 2025/05/09

### Further information

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/>

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 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 Recom-

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mendations 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. 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.

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