SAFETY DATA SHEET
according to GB/T 16483 and GB/T 17519

Fluazuron / Fipronil Formulation

Version 5.1  Revision Date: 2021/08/27  SDS Number: 557846-00012  Date of last issue: 2021/04/09

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Fluazuron / Fipronil Formulation

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

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid
Colour: light yellow
Odour: solvent-like

Flammable liquid and vapour. May be harmful if swallowed or in contact with skin. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May damage the unborn child. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

GHS Classification
Flammable liquids: Category 3
Acute toxicity (Oral): Category 5
Acute toxicity (Dermal): Category 5
Skin corrosion/irritation: Category 2
Serious eye damage/eye irritation: Category 2A
Reproductive toxicity: Category 1B
Specific target organ toxicity - single exposure: Category 3
Specific target organ toxicity - repeated exposure: Category 2
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Short-term (acute) aquatic hazard: Category 1
Long-term (chronic) aquatic hazard: Category 1

GHS label elements
Hazard pictograms:
- Signal word: Danger
- Hazard statements:
  - H226 Flammable liquid and vapour.
  - H303 + H313 May be harmful if swallowed or in contact with skin.
  - H315 Causes skin irritation.
  - H319 Causes serious eye irritation.
  - H335 May cause respiratory irritation.
  - H360D May damage the unborn child.
  - H373 May cause damage to organs through prolonged or repeated exposure.
  - H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:
- Prevention:
  P201 Obtain special instructions before use.
  P202 Do not handle until all safety precautions have been read and understood.
  P210 Keep away from heat/ sparks/ open flames/ hot surfaces.
  No smoking.
  P233 Keep container tightly closed.
  P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
  P242 Use only non-sparking tools.
  P243 Take precautionary measures against static discharge.
  P260 Do not breathe mist or vapours.
  P264 Wash skin thoroughly after handling.
  P271 Use only outdoors or in a well-ventilated area.
  P273 Avoid release to the environment.
  P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

- Response:
  P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
  P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
  P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  P312 Call a POISON CENTER/ doctor if you feel unwell.
  P332 + P313 If skin irritation occurs: Get medical advice/ atten-
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-Butoxyethoxy)ethanol</td>
<td>112-34-5</td>
<td>&gt;= 50 -&lt; 70</td>
</tr>
<tr>
<td>N-Methyl-2-pyrrolidone</td>
<td>872-50-4</td>
<td>&gt;= 10 -&lt; 20</td>
</tr>
<tr>
<td>Ethanol#</td>
<td>64-17-5</td>
<td>&gt;= 10 -&lt; 20</td>
</tr>
<tr>
<td>Fluazuron</td>
<td>86811-58-7</td>
<td>&gt;= 2.5 -&lt; 10</td>
</tr>
<tr>
<td>Fipronil (ISO)</td>
<td>120068-37-3</td>
<td>&gt;= 1 -&lt; 2.5</td>
</tr>
<tr>
<td>2,6-Di-tert-butyl-p-cresol</td>
<td>128-37-0</td>
<td>&gt;= 0.1 -&lt; 0.25</td>
</tr>
<tr>
<td>tert-Butyl-4-methoxyphenol</td>
<td>25013-16-5</td>
<td>&gt;= 0.1 -&lt; 0.25</td>
</tr>
</tbody>
</table>

# Voluntarily-disclosed non-hazardous substance

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.
5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Do not use a solid water stream as it may scatter and spread fire.
Flash back possible over considerable distance.
Vapours may form explosive mixtures with air.
Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides
Nitrogen oxides (NOx)
Chlorine compounds
Fluorine compounds
Sulphur 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.
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
- Remove all sources of ignition.
- 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.
- Prevent spreading over a wide area (e.g., by containment or oil barriers).
- 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:
- Non-sparking tools should be used.
- Soak up with inert absorbent material.
- Suppress (knock down) gases/vapours/mists with a water spray jet.
- For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.
- Clean up remaining materials from spill with suitable absorbent.
- 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.

7. HANDLING AND STORAGE

Handling
- Technical measures: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation: If sufficient ventilation is unavailable, use with local exhaust ventilation.
- Use explosion-proof electrical, ventilating and lighting equipment.
- Advice on safe handling:
  - Do not get on skin or clothing.
  - Do not breathe mist or vapours.
  - Do not swallow.
  - Do not get in 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.
  - Non-sparking tools should be used.
  - Keep container tightly closed.
  - Already sensitised individuals should consult their physician regarding working with respiratory irritants or sensitisers.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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


Materials to avoid: Do not store with the following product types: Self-reactive substances and mixtures Organic peroxides Oxidizing agents Flammable gases Pyrophoric liquids Pyrophoric solids Self-heating substances and mixtures Poisonous gases Explosives

Packaging material: Unsuitable material: None known.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-Butoxyethoxy)ethanol</td>
<td>112-34-5</td>
<td>TWA (Inhalable fraction and vapor)</td>
<td>10 ppm (ACGIH)</td>
<td></td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>STEL</td>
<td>1,000 ppm (ACGIH)</td>
<td></td>
</tr>
<tr>
<td>Fluazuron</td>
<td>86811-58-7</td>
<td>TWA</td>
<td>60 µg/m³ (OEB 3) Internal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wipe limit</td>
<td>600 µg/100cm² Internal</td>
<td></td>
</tr>
<tr>
<td>Fipronil (ISO)</td>
<td>120068-37-3</td>
<td>TWA</td>
<td>2 µg/m³ (OEB 4) Internal</td>
<td></td>
</tr>
<tr>
<td>Further information: Skin</td>
<td></td>
<td>Wipe limit</td>
<td>20 µg/100 cm² Internal</td>
<td></td>
</tr>
<tr>
<td>2,6-Di-tert-butyl-p-cresol</td>
<td>128-37-0</td>
<td>TWA (Inhalable fraction and vapor)</td>
<td>2 mg/m³ (ACGIH)</td>
<td></td>
</tr>
</tbody>
</table>

#### Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Biological specimen</th>
<th>Sampling time</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-Methyl-2-pyrrolidone</td>
<td>872-50-4</td>
<td>5-Hydroxy-</td>
<td>Urine</td>
<td>End of</td>
<td>100 mg/l</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>
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**Engineering measures**

Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip-less quick connections).

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

Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face containment devices).

Minimize open handling.

Use explosion-proof electrical, ventilating and lighting equipment.

**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 aerosols.

**Skin and body protection**

Work uniform or laboratory coat.

Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces.

Use appropriate degowning techniques to remove potentially contaminated clothing.

**Hand protection**

Chemical-resistant gloves

**Remarks**

Consider double gloving. Take note that the product is flammable, which may impact the selection of hand protection.

**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.

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>light yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>solvent-like</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>32 °C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (liquids)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper explosion limit / Upper flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit / Lower flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Water solubility: No data available</td>
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<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
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<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Viscosity, kinematic: No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>The substance or mixture is not classified as oxidizing.</td>
</tr>
</tbody>
</table>
Molecular weight : No data available
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 reactions:
- Flammable liquid and vapour.
- Vapours may form explosive mixture with air.
- Can react with strong oxidizing agents.

Conditions to avoid:
- Heat, flames and sparks.
- Oxidizing agents

Incompatible materials:
- Oxidizing agents

Hazardous decomposition products:
- No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Exposure routes:
- Inhalation
- Skin contact
- Ingestion
- Eye contact

Acute toxicity
May be harmful if swallowed or in contact with skin.

Product:
- Acute oral toxicity: Acute toxicity estimate: 2,242 mg/kg
  Method: Calculation method
- Acute inhalation toxicity: Acute toxicity estimate: > 10 mg/l
  Exposure time: 4 h
  Test atmosphere: dust/mist
  Method: Calculation method
- Acute dermal toxicity: Acute toxicity estimate: 3,646 mg/kg
  Method: Calculation method

Components:

2-(2-Butoxyethoxy)ethanol:
- Acute oral toxicity: LD50 (Mouse): 2,410 mg/kg
- Acute dermal toxicity: LD50 (Rabbit): 2,764 mg/kg

N-Methyl-2-pyrrolidone:
- Acute oral toxicity: LD50 (Rat): 4,150 mg/kg
- Acute inhalation toxicity: LC50 (Rat): > 5.1 mg/l
  Exposure time: 4 h
  Test atmosphere: dust/mist
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<table>
<thead>
<tr>
<th>Method</th>
<th>Route of Exposure</th>
<th>Species</th>
<th>LD50/LC50</th>
<th>Exposure Time</th>
<th>Test Atmosphere</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethanol:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>OECD Test Guideline 403</td>
<td>Rat</td>
<td>&gt; 5,000 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute oral toxicity</td>
<td>OECD Test Guideline 401</td>
<td>Rat</td>
<td>&gt; 5,000 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td></td>
<td>Rat</td>
<td>124.7 mg/l</td>
<td>4 h</td>
<td>vapour</td>
</tr>
<tr>
<td><strong>Fluazuron:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>OECD Test Guideline 402</td>
<td>Rat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute oral toxicity</td>
<td>OECD Test Guideline 401</td>
<td>Rat</td>
<td>&gt; 5,000 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td></td>
<td>Rat</td>
<td>&gt; 6.0 mg/l</td>
<td>4 h</td>
<td>dust/mist</td>
</tr>
<tr>
<td><strong>Fipronil (ISO):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute oral toxicity</td>
<td>OECD Test Guideline 402</td>
<td>Rat</td>
<td>92 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>OECD Test Guideline 402</td>
<td>Rat</td>
<td>&gt; 2,000 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2,6-Di-tert-butyl-p-cresol:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute oral toxicity</td>
<td>OECD Test Guideline 401</td>
<td>Rat</td>
<td>&gt; 6,000 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>OECD Test Guideline 402</td>
<td>Rat</td>
<td>&gt; 2,000 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment: The substance or mixture has no acute dermal toxicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>tert-Butyl-4-methoxyphenol:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute oral toxicity</td>
<td>OECD Test Guideline 402</td>
<td>Rat</td>
<td>&gt; 1,100 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>OECD Test Guideline 402</td>
<td>Rat</td>
<td>&gt; 2,000 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment: The substance or mixture has no acute dermal toxicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Skin corrosion/irritation
Causes skin irritation.

Components:

2-(2-Butoxyethoxy)ethanol:
Species: Rabbit
Method: OECD Test Guideline 404
Result: Mild skin irritation

N-Methyl-2-pyrrolidone:
Result: Skin irritation

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

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

Fipronil (ISO):
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

2,6-Di-tert-butyl-p-cresol:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
Remarks: Based on data from similar materials

tert-Butyl-4-methoxyphenol:
Result: Skin irritation

Serious eye damage/eye irritation
Causes serious eye irritation.

Components:

2-(2-Butoxyethoxy)ethanol:
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days

N-Methyl-2-pyrrolidone:
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Ethanol:
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Method: OECD Test Guideline 405

Fluazuron:
Species: Rabbit
Result: Mild eye irritation
Method: OECD Test Guideline 405

Fipronil (ISO):
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

2,6-Di-tert-butyl-p-cresol:
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405
Remarks: Based on data from similar materials

tert-Butyl-4-methoxyphenol:
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Remarks: Based on data from similar materials

Respiratory or skin sensitisation

Skin sensitisation
Not classified based on available information.

Respiratory sensitisation
Not classified based on available information.

Components:

2-(2-Butoxyethoxy)ethanol:
Test Type: Maximisation Test
Exposure routes: Skin contact
Species: Guinea pig
Result: negative

N-Methyl-2-pyrrolidone:
Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Method: OECD Test Guideline 429
Result: negative
Remarks: Based on data from similar materials
Ethanol:
Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Result: negative

Fluazuron:
Exposure routes: Skin contact
Species: Guinea pig
Result: negative

Fipronil (ISO):
Test Type: Buehler Test
Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

2,6-Di-tert-butyl-p-cresol:
Test Type: Human repeat insult patch test (HRIPT)
Exposure routes: Skin contact
Species: Humans
Result: negative

tert-Butyl-4-methoxyphenol:
Test Type: Human repeat insult patch test (HRIPT)
Exposure routes: Skin contact
Result: negative

Germ cell mutagenicity
Not classified based on available information.

Components:

2-(2-Butoxyethoxy)ethanol:
Genotoxicity in vitro:
Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

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

Test Type: Chromosome aberration test in vitro
Result: negative

Genotoxicity in vivo:
Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Mouse
Application Route: Ingestion
Result: negative
## N-Methyl-2-pyrrolidone:

**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
  - Method: OECD Test Guideline 476
  - Result: negative

- Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
  - Result: negative

**Genotoxicity in vivo**
- Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
  - Species: Mouse
  - Application Route: Ingestion
  - Method: OECD Test Guideline 474
  - Result: negative

- Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
  - Species: Hamster
  - Application Route: Ingestion
  - Method: OECD Test Guideline 475
  - Result: negative

## Ethanol:

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

- Test Type: Bacterial reverse mutation assay (AMES)
  - Result: negative

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

## Fluazuron:

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

- Test Type: DNA Repair
  - Result: negative

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

**Genotoxicity in vivo**
- Test Type: Cytogenetic assay
  - Species: Hamster
Result: equivocal

**Fipronil (ISO):**

**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
  Method: OECD Test Guideline 476
  Result: negative
- Test Type: Chromosome aberration test in vitro
  Method: OECD Test Guideline 473
  Result: negative

**Genotoxicity in vivo:**
- Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
  Species: Mouse
  Application Route: Ingestion
  Method: OECD Test Guideline 474
  Result: negative
- Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo
  Species: Rat
  Application Route: Ingestion
  Method: OECD Test Guideline 486
  Result: negative

**2,6-Di-tert-butyl-p-cresol:**

**Genotoxicity in vitro:**
- Test Type: Bacterial reverse mutation assay (AMES)
  Result: negative
- Test Type: In vitro mammalian cell gene mutation test
  Result: negative
- Test Type: Chromosome aberration test in vitro
  Result: negative

**Genotoxicity in vivo:**
- Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
  Species: Rat
  Application Route: Ingestion
  Result: negative

**tert-Butyl-4-methoxyphenol:**

**Genotoxicity in vitro:**
- Test Type: Bacterial reverse mutation assay (AMES)
  Result: negative
- Test Type: In vitro mammalian cell gene mutation test
  Method: OECD Test Guideline 476
  Result: negative
Fluazuron / Fipronil Formulation

Version: 5.1  Revision Date: 2021/08/27  SDS Number: 557846-00012  Date of last issue: 2021/04/09
Date of first issue: 2016/03/15

Test Type: Chromosome aberration test in vitro
Result: negative

Genotoxicity in vivo:
Test Type: Sex-linked recessive lethal test in Drosophila melanogaster (in vivo)
Species: Drosophila melanogaster (vinegar fly)
Application Route: Ingestion
Result: negative

Carcinogenicity
Not classified based on available information.

Components:

N-Methyl-2-pyrrolidone:
Species: Rat
Application Route: Ingestion
Exposure time: 2 Years
Result: negative

Species: Rat
Application Route: Inhalation (vapour)
Exposure time: 2 Years
Result: negative

Fluazuron:
Species: Rat
Application Route: Ingestion
Exposure time: 2 Years
Method: OECD Test Guideline 453
Result: negative

Species: Mouse
Application Route: Ingestion
Exposure time: 2 Years
Result: negative

Fipronil (ISO):
Species: Mouse
Application Route: Ingestion
Exposure time: 78 weeks
Result: negative

Species: Rat
Application Route: Ingestion
Exposure time: 104 weeks
Result: positive
Remarks: The mechanism or mode of action is not relevant in humans.
SAFETY DATA SHEET
according to GB/T 16483 and GB/T 17519

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2,6-Di-tert-butyl-p-cresol:
Species: Rat
Application Route: Ingestion
Exposure time: 22 Months
Result: negative

tert-Butyl-4-methoxyphenol:
Species: Hamster
Application Route: Ingestion
Exposure time: 24 weeks
Result: positive
Species: Rat
Application Route: Ingestion
Exposure time: 15 Months
Result: positive

Carcinogenicity - Assessment
Limited evidence of carcinogenicity in animal studies

Reproductive toxicity
May damage the unborn child.

Components:

2-(2-Butoxyethoxy)ethanol:
Effects on fertility: Test Type: One-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 415
Result: negative

Effects on foetal development: Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative

N-Methyl-2-pyrrolidone:
Effects on fertility: Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative

Effects on foetal development: Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: positive

Test Type: Fertility/early embryonic development
Species: Rat
Application Route: inhalation (vapour)
Fluazuron / Fipronil Formulation

Result: positive
Test Type: Embryo-foetal development
Species: Rabbit
Application Route: Ingestion
Result: positive

Reproductive toxicity - Assessment: Clear evidence of adverse effects on development, based on animal experiments.

Ethanol:
Effects on fertility: Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Result: negative

Fluazuron:
Effects on fertility: Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on foetal development: Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative
Test Type: Embryo-foetal development
Species: Rabbit
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative

Fipronil (ISO):
Effects on fertility: Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on foetal development: Test Type: Embryo-foetal development
Species: Rabbit
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative

2,6-Di-tert-butyl-p-cresol:
Effects on fertility: Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative
Effects on foetal development:
Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative

tert-Butyl-4-methoxyphenol:
Effects on fertility:
Test Type: One-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on foetal development:
Test Type: Fertility/early embryonic development
Species: Mouse
Application Route: Ingestion
Result: positive

Reproductive toxicity - Assessment:
Some evidence of adverse effects on development, based on animal experiments.

STOT - single exposure
May cause respiratory irritation.

Components:
N-Methyl-2-pyrrolidone:
Assessment: May cause respiratory irritation.

STOT - repeated exposure
May cause damage to organs through prolonged or repeated exposure.

Components:
Fipronil (ISO):
Exposure routes: Ingestion
Target Organs: Central nervous system, Kidney
Assessment: Shown to produce significant health effects in animals at concentrations of 10 mg/kg bw or less.

2,6-Di-tert-butyl-p-cresol:
Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Repeated dose toxicity
Components:
2-(2-Butoxyethoxy)ethanol:
Species: Rat
NOAEL: 250 mg/kg
LOAEL: 1,000 mg/kg
Application Route: Ingestion
Exposure time: 90 Days
fluazuron / fipronil formulation

method: oecd test guideline 408

species: rat
NOAEL: >= 0.094 mg/l
application route: inhalation (vapour)
exposure time: 90 days

method: oecd test guideline 413

species: rat
NOAEL: >= 2,000 mg/kg
application route: skin contact
exposure time: 90 days

N-methyl-2-pyrrolidone:

species: rat, male
NOAEL: 169 mg/kg
LOAEL: 433 mg/kg
application route: ingestion
exposure time: 90 days

method: oecd test guideline 408

species: rat
NOAEL: 0.5 mg/l
LOAEL: 1 mg/l
application route: inhalation (dust/mist/fume)
exposure time: 96 days

method: oecd test guideline 413

species: rabbit
NOAEL: 826 mg/kg
LOAEL: 1,653 mg/kg
application route: skin contact
exposure time: 20 days

ethanol:

species: rat
NOAEL: 1,280 mg/kg
LOAEL: 3,156 mg/kg
application route: ingestion
exposure time: 90 days

fluazuron:

species: rat
LOAEL: 240 mg/kg
application route: ingestion
exposure time: 13 weeks
target organs: liver, thyroid, pituitary gland

species: rat
NOAEL: 10 mg/kg
LOAEL: 100 mg/kg
application route: skin contact
Fluazuron / Fipronil Formulation

Exposure time: 3 Weeks
Species: Dog
NOAEL: 7.5 mg/kg
LOAEL: 110 mg/kg
Application Route: Ingestion
Exposure time: 52 Weeks
Target Organs: Liver

Fipronil (ISO):
Species: Rabbit
NOAEL: 5 mg/kg
LOAEL: 10 mg/kg
Application Route: Skin contact
Exposure time: 21 Days
Method: OECD Test Guideline 410

Species: Rat, male
NOAEL: 0.059 mg/kg
LOAEL: 0.019 mg/kg
Application Route: Ingestion
Exposure time: 89 Weeks

2,6-Di-tert-butyl-p-cresol:
Species: Rat
NOAEL: 25 mg/kg
Application Route: Ingestion
Exposure time: 22 Months

tert-Butyl-4-methoxyphenol:
Species: Rat
NOAEL: 50 mg/kg
LOAEL: 250 mg/kg
Application Route: Ingestion
Exposure time: 8 Months

Aspiration toxicity
Not classified based on available information.

Experience with human exposure

Components:

N-Methyl-2-pyrrolidone:
Skin contact: Symptoms: Skin irritation
12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

2-(2-Butoxyethoxy)ethanol:
- Toxicity to fish: LC50 (Lepomis macrochirus (Bluegill sunfish)): 1,300 mg/l
  Exposure time: 96 h
- 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 plants: EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
  Exposure time: 96 h
  Method: OECD Test Guideline 201
- NOEC (Desmodesmus subspicatus (green algae)): >= 100 mg/l
  Exposure time: 96 h
  Method: OECD Test Guideline 201
- Toxicity to microorganisms: EC10: > 1,995 mg/l
  Exposure time: 30 min

N-Methyl-2-pyrrolidone:
- Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): > 500 mg/l
  Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
  Exposure time: 24 h
  Method: DIN 38412
- Toxicity to algae/aquatic plants: EC50 (Desmodesmus subspicatus (green algae)): 600.5 mg/l
  Exposure time: 72 h
  EC10 (Desmodesmus subspicatus (green algae)): 92.6 mg/l
  Exposure time: 72 h
- NOEC (Daphnia magna (Water flea)): 12.5 mg/l
  Exposure time: 21 d
  Method: OECD Test Guideline 211
- Toxicity to microorganisms: EC50: > 600 mg/l
  Exposure time: 30 min
  Method: ISO 8192

Ethanol:
- Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
  Exposure time: 96 h
### Fluazuron / Fipronil Formulation

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#### Toxicity to daphnia and other aquatic invertebrates
- **Fluazuron:**
  - EC50 (Ceriodaphnia (water flea)): > 1,000 mg/l
  - Exposure time: 48 h
- **Fipronil (ISO):**
  - NOEC (Mysisidopsis bahia (opossum shrimp)): 0.0006 µg/l
  - Exposure time: 48 h

#### Toxicity to algae/aquatic plants
- **Fluazuron:**
  - ErC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l
  - Exposure time: 72 h
  - EC10 (Chlorella vulgaris (Fresh water algae)): 11.5 mg/l
  - Exposure time: 72 h
- **Fipronil (ISO):**
  - NOEC (Raphidocelis subcapitata (freshwater green alga)): 27.9 mg/l
  - Exposure time: 72 h

#### Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
- **Fluazuron:**
  - NOEC (Daphnia magna (Water flea)): 9.6 mg/l
  - Exposure time: 9 d
- **Fipronil (ISO):**
  - NOEC (Mysidopsis bahia (opossum shrimp)): 0.0077 µg/l
  - Exposure time: 28 d

#### Toxicity to microorganisms
- **Fluazuron:**
  - EC50 (Pseudomonas putida): 6,500 mg/l
  - Exposure time: 16 h
- **Fipronil (ISO):**
  - NOEC (Desmodesmus subspicatus (green algae)): 40 µg/l
  - Exposure time: 96 h
  - Method: OECD Test Guideline 201

#### M-Factor (Acute aquatic toxicity)
- **Fluazuron:**
  - 1,000
- **Fipronil (ISO):**
  - 1,000

#### M-Factor (Chronic aquatic toxicity)
- **Fluazuron:**
  - 1,000
- **Fipronil (ISO):**
  - 1,000

#### Toxicity to fish
- **Fluazuron:**
  - LC50 (Cyprinus carpio (Carp)): > 9.1 mg/l
  - Exposure time: 96 h
- **Fipronil (ISO):**
  - NOEC (Cyprinodon variegatus (sheepshead minnow)): 2.9 µg/l
  - Exposure time: 35 d

#### Toxicity to daphnia and other aquatic invertebrates
- **Fluazuron:**
  - LC50 (Mysidopsis bahia (opossum shrimp)): 0.14 µg/l
  - Exposure time: 96 h
- **Fipronil (ISO):**
  - NOEC (Mysidopsis bahia (opossum shrimp)): 0.0077 µg/l
  - Exposure time: 28 d
## Fluazuron / Fipronil Formulation

### M-Factor (Acute aquatic toxicity)
M-Factor (Acute aquatic toxicity) : 10,000

### Toxicity to microorganisms
Toxicity to microorganisms : EC50: > 1,000 mg/l
Exposure time: 3 h

### 2,6-Di-tert-butyl-p-cresol:

#### Toxicity to fish
Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 0.57 mg/l
Exposure time: 96 h

#### Toxicity to daphnia and other aquatic invertebrates
Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.48 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

#### Toxicity to algae/aquatic plants
Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 0.24 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Chronic aquatic toxicity) : 1

#### Toxicity to fish (Chronic toxicity)
Toxicity to fish (Chronic toxicity) : NOEC (Oryzias latipes (Japanese medaka)): 0.053 mg/l
Exposure time: 30 d
Method: OECD Test Guideline 210

#### Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.316 mg/l
Exposure time: 21 d
M-Factor (Chronic aquatic toxicity) : 1

#### Toxicity to microorganisms
Toxicity to microorganisms : EC50: > 10,000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

### tert-Butyl-4-methoxyphenol:

#### Toxicity to fish
Toxicity to fish : LC50 (Danio rerio (zebra fish)): 1.56 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

#### Toxicity to daphnia and other aquatic invertebrates
Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2.3 mg/l
Exposure time: 48 h

#### Toxicity to algae/aquatic plants
Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 5.2 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
NOEC (Pseudokirchneriella subcapitata (green algae)): 0.25 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms: EC50 (Protozoa): > 1 - 10 mg/l
Exposure time: 48 h
Remarks: Based on data from similar materials

Persistence and degradability

Components:

2-(2-Butoxyethoxy)ethanol:
Biodegradability: Result: Readily biodegradable.
Biodegradation: 85 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

N-Methyl-2-pyrrolidone:
Biodegradability: Result: Readily biodegradable.
Biodegradation: 73 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

Ethanol:
Biodegradability: Result: Readily biodegradable.
Biodegradation: 84 %
Exposure time: 20 d

Fipronil (ISO):
Biodegradability: Result: Not readily biodegradable.
Biodegradation: 47 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

2,6-Di-tert-butyl-p-cresol:
Biodegradability: Result: Not readily biodegradable.
Biodegradation: 4.5 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

tert-Butyl-4-methoxyphenol:
Biodegradability: Result: Not readily biodegradable.
Biodegradation: 34.41 %
Exposure time: 28 d
Method: OECD Test Guideline 301D
Bioaccumulative potential

Components:

2-(2-Butoxyethoxy)ethanol:
Partition coefficient: n-octanol/water : log Pow: 1

N-Methyl-2-pyrrolidone:
Partition coefficient: n-octanol/water : log Pow: -0.46 Method: OECD Test Guideline 107

Ethanol:
Partition coefficient: n-octanol/water : log Pow: -0.35

Fluazuron:
Partition coefficient: n-octanol/water : log Pow: 5.1

Fipronil (ISO):
Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 321
Partition coefficient: n-octanol/water : log Pow: 4

2,6-Di-tert-butyl-p-cresol:
Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 330 - 1,800
Partition coefficient: n-octanol/water : log Pow: 5.1

tert-Butyl-4-methoxyphenol:
Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 8.1 - 21
Partition coefficient: n-octanol/water : log Pow: 2.82 Method: OECD Test Guideline 117

Mobility in soil
No data available

Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues : Dispose of in accordance with local regulations.
Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death. If not otherwise specified: Dispose of as unused product.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG
UN number : UN 1170
Proper shipping name : ETHANOL SOLUTION
Class : 3
Packing group : III
Labels : 3

IATA-DGR
UN/ID No. : UN 1170
Proper shipping name : Ethanol solution
Class : 3
Packing group : III
Labels : Flammable Liquids
Packing instruction (cargo aircraft) : 366
Packing instruction (passenger aircraft) : 355

IMDG-Code
UN number : UN 1170
Proper shipping name : ETHANOL SOLUTION
Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-D
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 1170
Proper shipping name : ETHANOL SOLUTION
Class : 3
Packing group : III
Labels : 3

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.
SAFETY DATA SHEET
according to GB/T 16483 and GB/T 17519

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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 : Listed
Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)
No. / Code  Chemical name / Category  Threshold quantity
W5.4  Flammable liquids  5,000 t

The components of this product are reported in the following inventories:
AICS : not determined
DSL : not determined
IECSC : not determined

16. OTHER INFORMATION

Further information
Sources of key data used to compile the Safety Data Sheet:
Date format : yyyy/mm/dd
Full text of other abbreviations
ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
ACGIH / TWA : 8-hour, time-weighted average
ACGIH / STEL : Short-term exposure limit
AIIIC - 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;
SAFETY DATA SHEET
according to GB/T 16483 and GB/T 17519

Fluazuron / Fipronil Formulation

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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

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.

CN / EN