SAFETY DATA SHEET

Sulfapyridine Formulation

1. PRODUCT AND COMPANY IDENTIFICATION

Chemical product name : Sulfapyridine Formulation

Supplier’s company name, address and phone number
Company name of supplier : MSD
Address : Kumagaya, Saitama Prefecture, Xicheng 810 MSD Co., Ltd.
Menuma factory
Telephone : 048-588-8411
E-mail address : EHSDATASTEWARD@msd.com
Emergency telephone number : +1-908-423-6000

Recommended use of the chemical and restrictions on use
Recommended use : Pharmaceutical

2. HAZARDS IDENTIFICATION

GHS classification of chemical product
Acute toxicity (Oral) : Category 3
Skin sensitisation : Category 1
Reproductive toxicity : Category 1A
Specific target organ toxicity - single exposure (Oral) : Category 1 (Systemic toxicity)
Short-term (acute) aquatic hazard : Category 3
Long-term (chronic) aquatic hazard : Category 3

GHS label elements
Hazard pictograms :
Signal word : Danger
Hazard statements :
H301 Toxic if swallowed.
H317 May cause an allergic skin reaction.
H360F May damage fertility.
H370 Causes damage to organs (Systemic toxicity) if swallowed.
H412 Harmful 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.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
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.

**Response:**
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

**Storage:**
P405 Store locked up.

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

**Other hazards which do not result in classification**

**Important symptoms and outlines of the emergency assumed:**

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

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance / Mixture:** Mixture

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
<th>ENCS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrolatum</td>
<td>8009-03-8</td>
<td>&gt;= 20 - &lt; 30</td>
<td></td>
</tr>
<tr>
<td>Sulfapyridine</td>
<td>144-83-2</td>
<td>&gt;= 10 - &lt; 20</td>
<td></td>
</tr>
<tr>
<td>Benzyl benzoate</td>
<td>120-51-4</td>
<td>&gt;= 0.25 - &lt; 1</td>
<td>3-1389</td>
</tr>
<tr>
<td>Benzyl cinnamate</td>
<td>103-41-3</td>
<td>&gt;= 0.25 - &lt; 1</td>
<td>3-1739</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

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

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

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

In case of eye contact:
If in eyes, rinse well with water. Get medical attention if irritation develops and persists.

If swallowed:
If swallowed, DO NOT induce vomiting. Call a physician or poison control centre immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:
Toxic if swallowed. May cause an allergic skin reaction. May damage fertility. Causes damage to organs if swallowed. Contact with dust can cause mechanical irritation or drying of the skin. Dust contact with the eyes can lead to mechanical irritation.

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 (CO2)
Dry chemical

Unsuitable extinguishing media:
None known.

Specific hazards during firefighting:
Exposure to combustion products may be a hazard to health.

Hazardous combustion products:
Carbon 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 | Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8). |
| Environmental precautions | Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained. |
| Methods and materials for containment and cleaning up | Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). 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. 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 | 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, fume, gas, mist, vapours or spray. 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 |
| Hygiene measures | If exposure to chemical is likely during typical use, provide eye |

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>3.0</td>
<td>2021/08/27</td>
<td>5624958-00003</td>
<td>2020/09/09</td>
<td>2020/04/09</td>
</tr>
</tbody>
</table>
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.

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

Threshold limit value and permissible exposure limits for each component in the work environment

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Reference concentration / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrolatum</td>
<td>8009-03-8</td>
<td>OEL-M (Mist)</td>
<td>3 mg/m3</td>
<td>JP OEL JSOH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Inhalable particulate matter)</td>
<td>5 mg/m3</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Sulfapyridine</td>
<td>144-83-2</td>
<td>TWA</td>
<td>0.25 mg/m3 (OEB 2)</td>
<td>Internal</td>
</tr>
</tbody>
</table>

Further information:
- Group 1: carcinogenic to humans
- DSEN
- Wipe limit 0.1 mg/100 cm2

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

Personal protective equipment

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

Filter type:
- Combined particulates and organic vapour type

Hand protection:
Material: Chemical-resistant gloves

Eye 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: solid

Colour: No data available

Odour: No data available

Odour Threshold: No data available

Melting point/freezing point: No data available

Boiling point, initial boiling point and boiling range: No data available

Flammability (solid, gas): May form combustible dust concentrations in air during processing, handling or other means.

Flammability (liquids): No data available

Lower explosion limit and upper explosion limit / flammability limit

Upper explosion limit / Upper flammability limit: No data available

Lower explosion limit / Lower flammability limit: No data available

Flash point: Not applicable

Decomposition temperature: No data available

pH: No data available

Evaporation rate: Not applicable

Auto-ignition temperature: No data available

Viscosity

Viscosity, kinematic: Not applicable

Solubility(ies)

Water solubility: No data available

Partition coefficient: n-octanol/water: Not applicable
10. STABILITY AND REACTIVITY

Reactivity: Not classified as a reactivity hazard.
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: May form combustible dust concentrations in air during processing, handling or other means. Can react with strong oxidizing agents.

Conditions to avoid: Heat, flames and sparks.
Avoid dust formation.

Incompatible materials: Oxidizing agents

Hazardous decomposition products: No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure: Inhalation
Skincare contact
Ingestion
Eye contact

Acute toxicity
Toxic if swallowed.

Product:
Acute oral toxicity: Acute toxicity estimate: 158 mg/kg
Method: Calculation method

Components:

Petrolatum:
Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
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Remarks: Based on data from similar materials

Acute dermal toxicity: LD50 (Rat): > 2,000 mg/kg  Method: OECD Test Guideline 402  Assessment: The substance or mixture has no acute dermal toxicity  Remarks: Based on data from similar materials

Sulfapyridine:
  Acute oral toxicity: LD50 (Rat): 15.8 mg/kg

Benzyl benzoate:
  Acute oral toxicity: LD50 (Rat): 1,700 mg/kg
  Acute dermal toxicity: LD50 (Rabbit): > 2,000 mg/kg

Benzyl cinnamate:
  Acute oral toxicity: LD50 (Rat): 2,610 mg/kg  Remarks: Based on data from similar materials
  Acute dermal toxicity: LD50 (Rabbit): > 5,000 mg/kg  Remarks: Based on data from similar materials

Skin corrosion/irritation
Not classified based on available information.

Components:

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

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

Benzyl cinnamate:
  Species: Rabbit
  Result: No skin irritation
  Remarks: Based on data from similar materials

Serious eye damage/eye irritation
Not classified based on available information.

Components:

Petrolatum:
  Species: Rabbit
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</table>

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

**Benzyl benzoate:**

| Species      | : Rabbit |
| Result       | : No eye irritation |
| Remarks      | : Based on data from similar materials |

**Benzyl cinnamate:**

| Species      | : Rabbit |
| Result       | : No eye irritation |
| Remarks      | : Based on data from similar materials |

### Respiratory or skin sensitisation

**Skin sensitisation**

May cause an allergic skin reaction.

**Respiratory sensitisation**

Not classified based on available information.

### Components:

#### Petrolatum:

| Test Type         | : Buehler Test |
| Exposure routes   | : Skin contact |
| Species           | : Guinea pig  |
| Result            | : negative    |
| Remarks           | : Based on data from similar materials |

#### Sulfapyridine:

| Assessment       | : May cause sensitisation by skin contact. |

**Benzyl benzoate:**

| Test Type         | : Local lymph node assay (LLNA) |
| Exposure routes   | : Skin contact |
| Species           | : Mouse |
| Method            | : OECD Test Guideline 429 |
| Result            | : negative |

**Benzyl cinnamate:**

| Test Type         | : Maximisation Test |
| Exposure routes   | : Skin contact |
| Species           | : Guinea pig |
| Method            | : OECD Test Guideline 406 |
| Remarks           | : Based on data from similar materials |

| Assessment       | : Probability or evidence of low to moderate skin sensitisation rate in humans |
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**Sulfapyridine Formulation**

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</tr>
</tbody>
</table>

### Germ cell mutagenicity
Not classified based on available information.

### Components:

#### Petrolatum:

| Genotoxicity in vitro | Test Type: Chromosome aberration test in vitro  
Result: negative  
Remarks: Based on data from similar materials |
|-----------------------|------------------------------------------------------------------------------------------|
| Genotoxicity in vivo  | Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Mouse  
Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: negative  
Remarks: Based on data from similar materials |

#### Sulfapyridine:

| Genotoxicity in vitro | Test Type: In vitro sister chromatid exchange assay in mammalian cells  
Result: positive |
|-----------------------|--------------------------------------------------------------------------|
|                       | Test Type: Chromosome aberration test in vitro  
Test system: Chinese hamster cells  
Result: negative |
| Genotoxicity in vivo  | Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Mouse  
Cell type: Bone marrow  
Result: negative |
| Germ cell mutagenicity - Assessment | Weight of evidence does not support classification as a germ cell mutagen. |

#### Benzyl benzoate:

| Genotoxicity in vitro | Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative  
Test Type: In vitro mammalian cell gene mutation test  
Result: positive  
Remarks: Based on data from similar materials  
Remarks: Based on data from similar materials  
Test Type: Chromosome aberration test in vitro  
Result: negative  
Remarks: Based on data from similar materials |
| Genotoxicity in vivo  | Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo  
Species: Rat  
Application Route: Ingestion  
Result: negative  
Remarks: Based on data from similar materials |
Benzyl cinnamate:
Genotoxicity in vitro: Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
Remarks: Based on data from similar materials

Test Type: In vitro sister chromatid exchange assay in mammalian cells
Result: negative
Remarks: Based on data from similar materials

Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity
Not classified based on available information.

Components:

Petrolatum:
Species: Rat
Application Route: Ingestion
Exposure time: 2 Years
Result: negative

Sulfapyridine:
Carcinogenicity - Assessment: No data available

Benzyl cinnamate:
Species: Rat
Application Route: Ingestion
Exposure time: 105 weeks
Result: negative
Remarks: Based on data from similar materials

Species: Mouse
Application Route: Ingestion
Exposure time: 105 weeks
Result: negative
Remarks: Based on data from similar materials

Reproductive toxicity
May damage fertility.

Components:

Petrolatum:
Effects on fertility: Test Type: Reproduction/Developmental toxicity screening test
Species: Rat
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Effects on foetal development:
- **Sulfapyridine:**
  - Test Type: Embryo-foetal development
  - Species: Rat
  - Application Route: Skin contact
  - Result: negative
  - Remarks: Based on data from similar materials

- **Benzyl benzoate:**
  - Test Type: Embryo-foetal development
  - Species: Rat
  - Application Route: Ingestion
  - Result: negative

- **Benzyl cinnamate:**
  - Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
  - Species: Rat
  - Application Route: Ingestion
  - Result: negative
  - Remarks: Based on data from similar materials

STOT - single exposure
Causes damage to organs (Systemic toxicity) if swallowed.

Components:
- **Sulfapyridine:**

Exposure routes: Oral

Assessment: Shown to produce significant health effects in animals at concentrations of 300 mg/kg bw or less.

STOT - repeated exposure
Not classified based on available information.

Repeated dose toxicity

Components:

Petrolatum:
Species: Rat
NOAEL: 5,000 mg/kg
Application Route: Ingestion
Exposure time: 2 yr

**Benzyl benzoate:**
Species: Rat
NOAEL: 781 mg/kg
Application Route: Skin contact
Exposure time: 4 Weeks

**Benzyl cinnamate:**
Species: Rat, male
NOAEL: 275 mg/kg
Application Route: Ingestion
Exposure time: 90 Days
Remarks: Based on data from similar materials

**Aspiration toxicity**
Not classified based on available information.

**Experience with human exposure**

**Components:**

**Sulfapyridine:**
Skin contact: Symptoms: Sensitisation
Ingestion: Symptoms: Gastrointestinal disturbance
Symptoms: Sensitivity to light
Symptoms: Headache
Symptoms: hepatitis
Symptoms: Stevens-Johnson syndrome

12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Components:**

**Petrolatum:**
Toxicity to fish: LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 203
Remarks: Based on data from similar materials
### Sulfapyridine Formulation

**Toxicity to daphnia and other aquatic invertebrates**

- **EC50 (Daphnia magna (Water flea)):** > 10,000 mg/l
- **Exposure time:** 48 h
- **Test substance:** Water Accommodated Fraction
- **Remarks:** Based on data from similar materials

**Toxicity to algae/aquatic plants**

- **NOEL (Pseudokirchneriella subcapitata (green algae)):** >= 100 mg/l
- **Exposure time:** 72 h
- **Test substance:** Water Accommodated Fraction
- **Method:** OECD Test Guideline 201
- **Remarks:** Based on data from similar materials

**Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)**

- **NOEC (Daphnia magna (Water flea)):** 10 mg/l
- **Exposure time:** 21 d
- **Test substance:** Water Accommodated Fraction
- **Remarks:** Based on data from similar materials

**Sulfapyridine:**

- **Toxicity to algae/aquatic plants**
  - **EC10 (Raphidocelis subcapitata (freshwater green alga)):** 1.0 mg/l
  - **End point:** Growth rate
  - **Exposure time:** 72 h

**Benzyl benzoate:**

- **Toxicity to fish**
  - **LC50 (Danio rerio (zebra fish)):** 2.32 mg/l
  - **Exposure time:** 96 h
  - **Method:** Regulation (EC) No. 440/2008, Annex, C.1

- **Toxicity to daphnia and other aquatic invertebrates**
  - **EC50 (Daphnia magna (Water flea)):** 3.09 mg/l
  - **Exposure time:** 48 h
  - **Method:** OECD Test Guideline 202

- **Toxicity to algae/aquatic plants**
  - **EC50 (Pseudokirchneriella subcapitata (green algae)):** 0.475 mg/l
  - **Exposure time:** 72 h
  - **Method:** OECD Test Guideline 201
  - **NOEC (Pseudokirchneriella subcapitata (green algae)):** 0.247 mg/l
  - **Exposure time:** 72 h
  - **Method:** OECD Test Guideline 201

- **M-Factor (Acute aquatic toxicity)**
  - **1**

- **Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)**
  - **NOEC (Daphnia magna (Water flea)):** 0.258 mg/l
  - **Exposure time:** 21 d
  - **Method:** OECD Test Guideline 211

- **Toxicity to microorganisms**
  - **EC50: > 10,000 mg/l**
  - **Exposure time:** 3 h
  - **Method:** ISO 8192

**Benzyl cinnamate:**

- **EC50: > 10,000 mg/l**
- **Exposure time:** 3 h
- **Method:** ISO 8192
**Toxicity to fish**
- LC50 (Danio rerio (zebra fish)): > 0.643 mg/l
- Exposure time: 96 h

**Toxicity to daphnia and other aquatic invertebrates**
- EL50 (Daphnia magna (Water flea)): 2.8 mg/l
- Exposure time: 48 h
- Test substance: Water Accommodated Fraction
- Method: OECD Test Guideline 202

**Toxicity to algae/aquatic plants**
- ErC50 (Pseudokirchneriella subcapitata (green algae)): 0.386 mg/l
- Exposure time: 72 h
- Method: OECD Test Guideline 201
  - EC10 (Pseudokirchneriella subcapitata (green algae)): 0.122 mg/l
  - Exposure time: 72 h
  - Method: OECD Test Guideline 201

**M-Factor (Acute aquatic toxicity)**
- 1

**Toxicity to microorganisms**
- EC50: > 100 mg/l
- Exposure time: 3 h
- Method: ISO 8192
- Remarks: Based on data from similar materials

**Persistence and degradability**

**Components:**

**Petrolatum:**
- Biodegradability: Result: Not readily biodegradable.
  - Biodegradation: 31 %
  - Exposure time: 28 d
  - Method: OECD Test Guideline 301F
  - Remarks: Based on data from similar materials

**Benzyl benzoate:**
- Biodegradability: Result: Readily biodegradable.
  - Biodegradation: 94 %
  - Exposure time: 28 d

**Benzyl cinnamate:**
- Biodegradability: Result: Readily biodegradable.
  - Biodegradation: 100 %
  - Exposure time: 7 d
  - Remarks: Based on data from similar materials

**Bioaccumulative potential**

**Components:**

**Benzyl benzoate:**
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Partition coefficient: n-octanol/water
- log Pow: 4
  Method: OECD Test Guideline 117

Benzy1 cinnamate:
- Partition coefficient: n-octanol/water
  - log Pow: 4.18
    Method: OECD Test Guideline 117

Mobility in soil
No data available

Hazardous to the ozone layer
Not applicable

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. If not otherwise specified: Dispose of as unused product.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG
- UN number: UN 2811
- Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Sulfapyridine)
- Class: 6.1
- Packing group: III
- Labels: 6.1

IATA-DGR
- UN/ID No.: UN 2811
- Proper shipping name: Toxic solid, organic, n.o.s. (Sulfapyridine)
- Class: 6.1
- Packing group: III
- Labels: Toxic
- Packing instruction (cargo aircraft): 677
- Packing instruction (passenger aircraft): 670

IMDG-Code
- UN number: UN 2811
- Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Sulfapyridine)
- Class: 6.1
- Packing group: III
Labels: 6.1
EmS Code: F-A, S-A
Marine pollutant: no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

National Regulations
Refer to section 15 for specific national regulation.

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

15. REGULATORY INFORMATION

Related Regulations

Fire Service Law
Not applicable to dangerous materials / designated flammables.

Chemical Substance Control Law
Priority Assessment Chemical Substance

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td>Benzyl benzoate</td>
<td>128</td>
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Industrial Safety and Health Law

Harmful Substances Prohibited from Manufacture
Not applicable

Harmful Substances Required Permission for Manufacture
Not applicable

Substances Prevented From Impairment of Health
Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity
Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity
Not applicable

Substances Subject to be Notified Names
Article 57-2 (Enforcement Order Table 9)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Number</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral oil</td>
<td>168</td>
<td>&gt;=20 - &lt;30</td>
</tr>
</tbody>
</table>

Substances Subject to be Indicated Names
Article 57 (Enforcement Order Article 18)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral oil</td>
<td>168</td>
</tr>
</tbody>
</table>
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Sulfapyridine Formulation

Ordinance on Prevention of Hazards Due to Specified Chemical Substances
Not applicable

Ordinance on Prevention of Lead Poisoning
Not applicable

Ordinance on Prevention of Tetraalkyl Lead Poisoning
Not applicable

Ordinance on Prevention of Organic Solvent Poisoning
Not applicable

Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances)
Not applicable

Poisonous and Deleterious Substances Control Law
Not applicable

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof
Not applicable

High Pressure Gas Safety Act
Not applicable

Explosive Control Law
Not applicable

Vessel Safety Law
Toxic and infectious substances (Article 2 and 3 of rules on shipping and storage of dangerous goods and its Attached Table 1)

Aviation Law
Toxic and infectious substances (Article 194 of The Enforcement Rules of Aviation Law and its Attached Table 1)

Marine Pollution and Sea Disaster Prevention etc Law

<table>
<thead>
<tr>
<th>Bulk transportation</th>
<th>Not classified as noxious liquid substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Pollution and Sea Disaster Prevention etc Law</td>
<td></td>
</tr>
</tbody>
</table>

| Pack transportation | Not classified as marine pollutant |

Narcotics and Psychotropics Control Act
Narcotic or Psychotropic Raw Material (Export / Import Permission)
Not applicable
Specific Narcotic or Psychotropic Raw Material (Export / Import permission)
Not applicable

Waste Disposal and Public Cleansing Law
Industrial waste

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

<table>
<thead>
<tr>
<th>AICS</th>
<th>not determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL</td>
<td>not determined</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

Sulfapyridine Formulation

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IECSC : not determined

16. OTHER INFORMATION

Further information

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

Date format : yyyy/mm/dd

Full text of other abbreviations
ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA : 8-hour, time-weighted average
JP OEL JSOH / OEL-M : Occupational Exposure Limit Mean

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 Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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JP / EN