1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Betamethasone / Salicylic Acid Ointment Formulation

Manufacturer or supplier’s details
Company : MSD
Address : 199 Wenhai North Road
HEDA, Hangzhou - Zhejiang Province - CHINA 310018
Telephone : 908-740-4000
Emergency telephone number : 86-571-87268110
E-mail address : EHSDATATESTWARD@msd.com

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

2. HAZARDS IDENTIFICATION

Emergency Overview

<table>
<thead>
<tr>
<th>Appearance</th>
<th>ointment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>white, translucent</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Causes mild skin irritation. Causes serious eye damage. May be harmful if inhaled. 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

Acute toxicity (Inhalation) : Category 5
Skin corrosion/irritation : Category 3
Serious eye damage/eye irritation : Category 1
Reproductive toxicity : Category 1B
Specific target organ toxicity - repeated exposure : Category 1
Long-term (chronic) aquatic hazard : Category 1

GHS label elements
Betamethasone / Salicylic Acid Ointment Formulation

Hazard pictograms:
- Danger

Signal word:
- Danger

Hazard statements:
- H316 Causes mild skin irritation.
- H318 Causes serious eye damage.
- H333 May be harmful if inhaled.
- 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:
  - 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.
  - P273 Avoid release to the environment.
  - P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Response:
  - P304 + P312 IF INHALED: Call a POISON CENTER/ doctor if you feel unwell.
  - P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
  - P308 + P313 IF exposed or concerned: Get medical advice/ attention.
  - P332 + P313 If skin irritation occurs: Get medical advice/ attention.
  - 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 be harmful if inhaled. Causes mild skin irritation. Causes serious eye damage. May damage the unborn child. Causes damage to organs through prolonged or repeated exposure.
SAFETY DATA SHEET
according to GB/T 16483 and GB/T 17519

Betamethasone / Salicylic Acid Ointment Formulation

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

Other hazards which do not result in classification
None known.

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>Petrolatum</td>
<td>8009-03-8</td>
<td>86.93</td>
</tr>
<tr>
<td>Paraffin oil</td>
<td>8012-95-1</td>
<td>10</td>
</tr>
<tr>
<td>salicylic acid</td>
<td>69-72-7</td>
<td>3</td>
</tr>
<tr>
<td>betamethasone</td>
<td>378-44-9</td>
<td>0.064</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 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 : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Get medical attention immediately.

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

Most important symptoms and effects, both acute and delayed
Causes mild skin irritation.
Causes serious eye damage.
May be harmful if inhaled.
May damage the unborn child.
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
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 and personal protective equipment recommendations.

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

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

7. HANDLING AND STORAGE

Handling
Technical measures: See Engineering measures under EXPOSURE CONTROLS/PERSOAL PROTECTION section.
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 swallow.
- Do not get in eyes.
- Handle in accordance with good industrial hygiene and safety.
practice, based on the results of the workplace exposure assessment.
Keep container tightly closed.
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

<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>Petrolatum</td>
<td>8009-03-8</td>
<td>TWA (Inhalable particulate matter)</td>
<td>5 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Paraffin oil</td>
<td>8012-95-1</td>
<td>TWA (Inhalable particulate matter)</td>
<td>5 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td>salicylic acid</td>
<td>69-72-7</td>
<td>TWA</td>
<td>100 µg/m³ (OEB 2)</td>
<td>Internal</td>
</tr>
</tbody>
</table>

Further information: DSEN

<table>
<thead>
<tr>
<th></th>
<th>Wipe limit</th>
<th>100 µg/100 cm²</th>
<th>Internal</th>
</tr>
</thead>
<tbody>
<tr>
<td>betamethasone</td>
<td>378-44-9</td>
<td>TWA</td>
<td>1 µg/m³ (OEB 4)</td>
</tr>
</tbody>
</table>

Further information: Skin

<table>
<thead>
<tr>
<th></th>
<th>Wipe limit</th>
<th>10 µg/100 cm²</th>
<th>Internal</th>
</tr>
</thead>
</table>

Engineering measures: Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., vacuum conveying from a closed system, packout head with inflatable seal from stationary container, ventilated enclosure, etc.). All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment. Essentially no open handling permitted.
Use closed processing systems or containment technologies.

Personal protective equipment

Respiratory protection: If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the rec-
Betamethasone / Salicylic Acid Ointment Formulation

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:
- Material: Chemical-resistant gloves
- Remarks: Consider double gloving.

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>ointment</td>
</tr>
<tr>
<td>Colour</td>
<td>white, translucent</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>4.6 - 5.3</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>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not classified as a flammability hazard</td>
</tr>
</tbody>
</table>

ommended guidelines, use respiratory protection.
**SAFETY DATA SHEET**

according to GB/T 16483 and GB/T 17519

**Betamethasone / Salicylic Acid Ointment Formulation**

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date:</th>
<th>SDS Number:</th>
<th>Date of last issue:</th>
<th>Date of first issue:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>2020/03/23</td>
<td>1841148-00010</td>
<td>2019/12/17</td>
<td>2017/08/21</td>
</tr>
</tbody>
</table>

### Flammability (liquids):
- No data available

### Upper explosion limit / Upper flammability limit:
- No data available

### Lower explosion limit / Lower flammability limit:
- No data available

### Vapour pressure:
- No data available

### Relative vapour density:
- No data available

### Relative density:
- No data available

### Density:
- No data available

### Solubility(ies):
- Water solubility:
  - No data available

### Partition coefficient: n-octanol/water:
- No data available

### Auto-ignition temperature:
- No data available

### Decomposition temperature:
- No data available

### Viscosity:
- Viscosity, kinematic:
  - No data available

### Explosive properties:
- Not explosive

### Oxidizing properties:
- The substance or mixture is not classified as oxidizing.

### 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:** Can react with strong oxidizing agents.
- **Conditions to avoid:** None known.
- **Incompatible materials:** Oxidizing agents
- **Hazardous decomposition products:** No hazardous decomposition products are known.

### 11. TOXICOLOGICAL INFORMATION

- **Exposure routes:** Skin contact
  - Ingestion
<table>
<thead>
<tr>
<th>Eye contact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acute toxicity</strong></td>
</tr>
<tr>
<td>May be harmful if inhaled.</td>
</tr>
<tr>
<td><strong>Product:</strong></td>
</tr>
<tr>
<td>Acute oral toxicity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Components:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Petrolatum:</strong></td>
</tr>
<tr>
<td>Acute oral toxicity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Paraffin oil:</strong></td>
</tr>
<tr>
<td>Acute oral toxicity</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Salicylic acid:</strong></td>
</tr>
<tr>
<td>Acute oral toxicity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Betamethasone / Salicylic Acid Ointment Formulation

betamethasone:
Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
LD50 (Mouse): > 4,500 mg/kg
Acute inhalation toxicity : LC50 (Rat): 0.4 mg/l
Exposure time: 4 h

Skin corrosion/irritation
Causes mild skin irritation.

Components:

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

Paraffin oil:
Species : Rabbit
Result : No skin irritation

salicylic acid:
Result : Skin irritation

betamethasone:
Species : Rabbit
Result : Mild skin irritation

Serious eye damage/eye irritation
Causes serious eye damage.

Components:

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

Paraffin oil:
Species : Rabbit
Result : No eye irritation

salicylic acid:
Species : Rabbit
Remarks : Severe eye irritation
Betamethasone / Salicylic Acid Ointment Formulation

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**betamethasone:**
Species: Rabbit
Result: No eye irritation

**Respiratory or skin sensitisation**

**Skin sensitisation**
Not classified based on available information.

**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

**salicylic acid:**
Test Type: Local lymph node assay (LLNA)
Species: Mouse
Result: negative

**betamethasone:**
Exposure routes: Dermal
Species: Guinea pig
Result: Weak sensitizer

**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
Betamethasone / Salicylic Acid Ointment Formulation

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

Genotoxicity in vivo: Test Type: Mammalian bone marrow sister chromatid exchange  
Species: Mouse  
Application Route: Intraperitoneal injection  
Result: negative

Test Type: Sister chromatid exchange analysis in spermatogonia  
Species: Mouse  
Application Route: Intraperitoneal injection  
Result: negative

betamethasone:
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: positive

Genotoxicity in vivo: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)  
Species: Mouse  
Application Route: Oral  
Result: equivocal

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

Carcinogenicity
Not classified based on available information.

Components:

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

salicylic acid:
Species: Mouse  
Application Route: Skin contact  
Exposure time: 1 Years  
NOAEL: 2 mg/cm2
Reproductive toxicity
May damage the unborn child.

Components:

Petrolatum:

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

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

Salicylic acid:

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Subcutaneous
Developmental Toxicity: LOAEL: 380 mg/kg body weight
Result: Maternal toxicity observed., Embryo-foetal toxicity

Test Type: Embryo-foetal development
Species: Rat
Application Route: Oral
Developmental Toxicity: NOAEL: 80 mg/kg body weight
Result: No effects on foetal development

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

Betamethasone:

Effects on foetal development : Species: Rabbit
Application Route: Intramuscular
Developmental Toxicity: LOAEL: 0.05 mg/kg body weight
Result: Fetotoxicity, Malformations were observed.

Species: Rat
Application Route: Subcutaneous
Developmental Toxicity: LOAEL: 0.42 mg/kg body weight
Result: Malformations were observed.

Species: Mouse
Application Route: Intramuscular
Developmental Toxicity: LOAEL: 1 mg/kg body weight
Result: Malformations were observed.
Betamethasone / Salicylic Acid Ointment Formulation

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

**STOT - single exposure**
Not classified based on available information.

**STOT - repeated exposure**
Causes damage to organs through prolonged or repeated exposure.

**Components:**

**betamethasone:**
- Target Organs: Pituitary gland, Immune system, muscle, thymus gland, Blood, Adrenal gland
- Assessment: Causes damage to organs through prolonged or repeated exposure.

**Repeated dose toxicity**

**Components:**

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

**Paraffin oil:**
- Species: Rat, female
- LOAEL: 161 mg/kg
- Application Route: Ingestion
- Exposure time: 90 Days

**salicylic acid:**
- Species: Rat
- NOAEL: 50 mg/kg
- Application Route: Ingestion
- Exposure time: 2 yr

- Species: Rat
- LOAEL: 500 mg/kg
- Application Route: Oral
- Exposure time: 3 d
- Target Organs: Liver

**betamethasone:**
- Species: Rabbit
- LOAEL: 0.05 %
- Application Route: Skin contact
Betamethasone / Salicylic Acid Ointment Formulation

Exposure time: 10 - 30 d
Target Organs: Pituitary gland, Immune system, muscle
Species: Rat
LOAEL: 0.05%
Application Route: Skin contact
Exposure time: 8 Weeks
Target Organs: thymus gland

Species: Mouse
LOAEL: 0.1%
Application Route: Skin contact
Exposure time: 8 Weeks
Target Organs: thymus gland

Species: Dog
LOAEL: 0.05 mg/kg
Application Route: Oral
Exposure time: 28 d
Target Organs: Blood, thymus gland, Adrenal gland

Aspiration toxicity
Not classified based on available information.

Components:
Paraffin oil:
The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Experience with human exposure

Components:
salicylic acid:
Skin contact: Symptoms: Skin irritation
Eye contact: Symptoms: Severe irritation
Ingestion: Symptoms: Gastrointestinal discomfort, hearing loss, Dizziness, electrolyte imbalance

betamethasone:
Inhalation: Target Organs: Adrenal gland
Skin contact: Symptoms: Redness, pruritis, Irritation

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Petrolatum:
Toxicity to fish: LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
## 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
- **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

## Paraffin oil:

**LL50** *(Scophthalmus maximus (turbot)): > 1,028 mg/l*
- **Exposure time:** 96 h
- **Test substance:** Water Accommodated Fraction
- **Remarks:** Based on data from similar materials

## Toxicity to daphnia and other aquatic invertebrates

**EL50** *(Acartia tonsa): > 3,193 mg/l*
- **Exposure time:** 48 h
- **Test substance:** Water Accommodated Fraction
- **Remarks:** Based on data from similar materials

**EL50** *(Skeletonema costatum (marine diatom)): > 3,200 mg/l*
- **Exposure time:** 72 h
- **Test substance:** Water Accommodated Fraction
- **Remarks:** Based on data from similar materials

**NOELR** *(Skeletonema costatum (marine diatom)): 993 mg/l*
- **Exposure time:** 72 h
- **Test substance:** Water Accommodated Fraction
- **Remarks:** Based on data from similar materials

## Salicylic acid:

**LC50** *(Pimephales promelas (fathead minnow)): 1,380 mg/l*
- **Exposure time:** 96 h
- **Remarks:** Based on data from similar materials

**EC50** *(Daphnia magna (Water flea)): 870 mg/l*
- **Exposure time:** 48 h
### Toxicity to algae/aquatic plants

**EC50** (Desmodesmus subspicatus (green algae)): > 100 mg/l  
**Exposure time**: 72 h  
**Method**: OECD Test Guideline 201

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

**NOEC** (Daphnia magna (Water flea)): 10 mg/l  
**Exposure time**: 21 d

---

#### betamethasone:

**Toxicity to daphnia and other aquatic invertebrates**

**EC50** (Americamysis): > 50 mg/l  
**Exposure time**: 96 h

**Toxicity to algae/aquatic plants**

**EC50** (Pseudokirchneriella subcapitata (green algae)): > 34 mg/l  
**Exposure time**: 72 h  
**Method**: OECD Test Guideline 201  
**Remarks**: No toxicity at the limit of solubility

**NOEC** (Pseudokirchneriella subcapitata (green algae)): 34 mg/l  
**Exposure time**: 72 h  
**Method**: OECD Test Guideline 201  
**Remarks**: No toxicity at the limit of solubility

**Toxicity to fish (Chronic toxicity)**

**NOEC** (Pimephales promelas (fathead minnow)): 0.052 mg/l  
**Exposure time**: 32 d  
**Method**: OECD Test Guideline 210

**NOEC** (Oryzias latipes (Japanese medaka)): 0.07 µg/l  
**Exposure time**: 219 d  
**Method**: OECD Test Guideline 229

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

**NOEC** (Daphnia magna (Water flea)): 8 mg/l  
**Exposure time**: 21 d  
**Method**: OECD Test Guideline 211

**M-Factor (Chronic aquatic toxicity)**

1,000

---

### 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

**Paraffin oil:**

**Biodegradability**: Result: Readily biodegradable.  
**Biodegradation**: 82 %
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Exposure time: 24 d  
Method: OECD Test Guideline 301F  
Remarks: Based on data from similar materials

Bioaccumulative potential

Components:

- **salicylic acid:**  
  Partition coefficient: n-octanol/water  
  : log Pow: 2.25

- **betamethasone:**  
  Partition coefficient: n-octanol/water  
  : log Pow: 2.11

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

14. TRANSPORT INFORMATION

**International Regulations**

**UNRTDG**

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

**IATA-DGR**

- UN/ID No.: UN 3077  
- Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (betamethasone)
- Class: 9  
- Packing group: III  
- Labels: Miscellaneous,  
- Packing instruction (cargo aircraft): 956
- Packing instruction (passen-
SAFETY DATA SHEET
according to GB/T 16483 and GB/T 17519

Betamethasone / Salicylic Acid Ointment Formulation

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gger aircraft)
Environmentally hazardous : yes

**IMDG-Code**

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

**Special precautions for user**

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

**15. REGULATORY INFORMATION**

**National regulatory information**

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

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
Betamethasone / Salicylic Acid Ointment Formulation

Version    Revision Date:  SDS Number:  Date of last issue: 2019/12/17
3.1        2020/03/23    1841148-00010    Date of first issue: 2017/08/21


Date format: yyyy/mm/dd

Full text of other abbreviations
ACGIH: USA. ACGIH Threshold Limit Values (TLV)
ACGIH / TWA: 8-hour, time-weighted average

AICS - Australian Inventory of Chemical Substances; 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 Maritime Dangerous Goods; ICD - 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; 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.