

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Gentamicin / Betamethasone Formulation

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 12/03/2024  |
| 8.0     | 06/17/2025     | 434598-00024 | Date of first issue: 01/06/2016 |

### SECTION 1. IDENTIFICATION

Product name : Gentamicin / Betamethasone Formulation

#### Manufacturer or supplier's details

Company name of supplier : Merck & Co., Inc  
Address : 126 E. Lincoln Avenue  
Rahway, New Jersey U.S.A. 07065  
Telephone : 908-740-4000  
Emergency telephone : 1-908-423-6000  
E-mail address : EHSDATASTEWARD@merck.com

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

Recommended use : Veterinary product  
Restrictions on use : Not applicable

### SECTION 2. HAZARDS IDENTIFICATION


#### GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Reproductive toxicity : Category 1A  
Specific target organ toxicity - repeated exposure : Category 1 (Pituitary gland, Immune system, muscle, thymus gland, Blood, Adrenal gland)

#### Other hazards

None known.

#### GHS label elements

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H360D May damage the unborn child.  
H372 Causes damage to organs (Pituitary gland, Immune system, muscle, thymus gland, Blood, Adrenal gland) through prolonged or repeated exposure.

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 mist or vapors.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves, protective clothing, eye protection and face protection.

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### Response:

P308 + P313 IF exposed or concerned: Get medical attention.

### Storage:

P405 Store locked up.

### Disposal:

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

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

| Chemical name                | CAS No./Unique ID | Concentration (% w/w) | Trade secret |
|------------------------------|-------------------|-----------------------|--------------|
| Polyethylene glycol stearate | 9004-99-3*        | $\geq 3 - \leq 7$     | TSC          |
| Gentamicin                   | 1403-66-3*        | $\geq 0.1 - \leq 1$   | TSC          |
| Betamethasone                | 378-44-9*         | $\geq 0.1 - \leq 1$   | TSC          |

\* Indicates that the identifier is a CAS No.

TSC- the actual concentration or concentration range is withheld as a trade secret

## SECTION 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 : Flush eyes with water as a precaution.  
Get medical attention if irritation develops and persists.
- If swallowed : If swallowed, DO NOT induce vomiting.  
Get medical attention.  
Rinse mouth thoroughly with water.
- Most important symptoms and effects, both acute and delayed : 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).

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Notes to physician : Treat symptomatically and supportively.

### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : None known.
- Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Carbon oxides
- 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 fire-fighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

### SECTION 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.  
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 : Soak up with inert absorbent material.  
For large spills, provide diking or other appropriate containment to keep material from spreading. If diked 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

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determine which regulations are applicable.  
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

### SECTION 7. HANDLING AND STORAGE

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL 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 breathe mist or vapors.  
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.  
Do not eat, drink or smoke when using this product.  
Take care to prevent spills, waste and minimize release to the environment.
- Conditions for safe storage : Keep in properly labeled 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  
Self-reactive substances and mixtures  
Organic peroxides  
Explosives  
Gases

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

| Components                   | CAS-No.   | Value type<br>(Form of exposure)    | Control parameters / Permissible concentration | Basis    |
|------------------------------|-----------|-------------------------------------|--|----------|
| Polyethylene glycol stearate | 9004-99-3 | TWA (Inhalable particulate matter)  | 10 mg/m <sup>3</sup>                           | ACGIH    |
|                              |           | TWA (Respirable particulate matter) | 3 mg/m <sup>3</sup>                            | ACGIH    |
| Gentamicin                   | 1403-66-3 | TWA                                 | 0.1 mg/m <sup>3</sup> (OEB 2)                  | Internal |
| Further information: OTO     |           |                                     |  |          |
| Betamethasone                | 378-44-9  | TWA                                 | 1 µg/m <sup>3</sup> (OEB 4)                    | Internal |
| Further information: Skin    |           |                                     |  |          |

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|    |  |            |                           |          |
|----|--|------------|---------------------------|----------|
| II |  | Wipe limit | 10 µg/100 cm <sup>2</sup> | Internal |
|----|--|------------|---------------------------|----------|

**Engineering measures** : The information below is intended for larger pilot/commercial-scale operations and manufacturing. For smaller scale, clinical, or pharmacy settings, site-specific internal risk assessment practices should be conducted to determine appropriate exposure control measures. The health hazard risks of handling this material are dependent on multiple factors, including but not limited to physical form and quantity handled. If applicable, use process enclosures, local exhaust ventilation (e.g., Biosafety Cabinet, Ventilated Balance Enclosures), or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels as low as reasonably achievable.

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. If handled in a laboratory, use a properly designed biosafety cabinet, fume hood, or other containment device if the potential exists for aerosolization. If this potential does not exist, handle over lined trays or benchtops.

### Personal protective equipment

**Respiratory protection** : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

### Hand protection

**Material** : Chemical-resistant gloves

**Remarks** : Consider double gloving.

**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. 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

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Hygiene measures : contaminated clothing.  
: 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.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|  |                     |
|--|---------------------|
| Appearance                                       | : liquid            |
| Color  | : No data available |
| Odor   | : No data available |
| Odor Threshold                                   | : No data available |
| pH   | : No data available |
| Melting point/freezing point                     | : No data available |
| Initial boiling point and boiling range          | : No data available |
| Flash point                                      | : No data available |
| Evaporation rate                                 | : No data available |
| Flammability (solid, gas)                        | : Not applicable    |
| Flammability (liquids)                           | : No data available |
| Upper explosion limit / Upper flammability limit | : No data available |
| Lower explosion limit / Lower flammability limit | : No data available |
| Vapor pressure                                   | : No data available |
| Relative vapor density                           | : No data available |
| Relative density                                 | : No data available |
| Density  | : No data available |
| Solubility(ies)                                  |                     |
| Water solubility                                 | : No data available |

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|  |   |  |
|--|---|--|
| Partition coefficient: n-octanol/water | : | No data available  |
| Autoignition 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 characteristics               | : |  |
| Particle size                          | : | No data available  |

### SECTION 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. |

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Inhalation  
Skin contact  
Ingestion  
Eye contact

#### Acute toxicity

Not classified based on available information.

#### Product:

|                           |   |   |
|---------------------------|---|---|
| Acute inhalation toxicity | : | Acute toxicity estimate: > 200 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Method: Calculation method |
|---------------------------|---|---|

#### Components:

#### Polyethylene glycol stearate:

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

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II

### Gentamicin:

|   |   |
|---|---|
| Acute oral toxicity                             | : LD50 (Rat): 8,000 - 10,000 mg/kg<br>LD50 (Mouse): 10,000 mg/kg  |
| Acute inhalation toxicity                       | : LC50 (Rat): > 0.2 mg/l<br>Exposure time: 4 h<br>Test atmosphere: dust/mist<br>Remarks: No mortality observed at this dose.  |
| Acute toxicity (other routes of administration) | : LD50 (Rat): 67 - 96 mg/kg<br>Application Route: Intravenous<br><br>LD50 (Rat): 371 - 384 mg/kg<br>Application Route: Intramuscular<br><br>LDLo (Monkey): 30 mg/kg<br>Application Route: Intravenous |

### Betamethasone:

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

### Skin corrosion/irritation

Not classified based on available information.

### Components:

#### Polyethylene glycol stearate:

|         |                      |
|---------|----------------------|
| Species | : Rabbit             |
| Method  | : Draize Test        |
| Result  | : No skin irritation |

### Gentamicin:

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

### Betamethasone:

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

### Serious eye damage/eye irritation

Not classified based on available information.



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### Components:

#### **Polyethylene glycol stearate:**

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

#### **Gentamicin:**

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

#### **Betamethasone:**

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

### **Respiratory or skin sensitization**

#### **Skin sensitization**

Not classified based on available information.

#### **Respiratory sensitization**

Not classified based on available information.

### Components:

#### **Polyethylene glycol stearate:**

|                    |   |                        |
|--------------------|---|------------------------|
| Test Type          | : | Open epicutaneous test |
| Routes of exposure | : | Skin contact           |
| Species            | : | Guinea pig             |
| Result             | : | negative               |

#### **Gentamicin:**

|         |   |                   |
|---------|---|-------------------|
| Remarks | : | No data available |
|---------|---|-------------------|

#### **Betamethasone:**

|                    |   |                 |
|--------------------|---|-----------------|
| Routes of exposure | : | Dermal          |
| Species            | : | Guinea pig      |
| Result             | : | Weak sensitizer |

### **Germ cell mutagenicity**

Not classified based on available information.

### Components:

#### **Polyethylene glycol stearate:**

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

#### **Gentamicin:**

|                       |   |   |
|-----------------------|---|---|
| Genotoxicity in vitro | : | Test Type: In vitro mammalian cell gene mutation test |
|-----------------------|---|---|

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|                      |  |
|----------------------|--|
|                      | Result: negative   |
|                      | Test Type: Chromosome aberration test in vitro                                   |
|                      | Result: equivocal  |
| Genotoxicity in vivo | : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) |
|                      | Species: Mouse   |
|                      | Application Route: Intravenous 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:

#### Gentamicin:

|                              |                     |
|------------------------------|---------------------|
| Carcinogenicity - Assessment | : No data available |
|------------------------------|---------------------|

**IARC** No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### Reproductive toxicity

May damage the unborn child.

### Components:

#### Gentamicin:

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- |                                    |   |
|------------------------------------|---|
| Effects on fertility               | : Test Type: Two-generation reproduction toxicity study<br>Species: Rat<br>Fertility: NOAEL: 20 mg/kg body weight<br>Result: No significant adverse effects were reported   |
| Effects on fetal development       | : Test Type: Embryo-fetal development<br>Species: Rabbit<br>Developmental Toxicity: NOAEL: 3.6 mg/kg body weight<br>Result: No embryo-fetal toxicity.<br><br>Test Type: Embryo-fetal development<br>Species: Rat<br>Application Route: Intraperitoneal<br>Developmental Toxicity: LOAEL: 75 mg/kg body weight<br>Result: Embryo-fetal toxicity.<br><br>Test Type: Embryo-fetal development<br>Species: Mouse<br>Application Route: Intraperitoneal<br>Developmental Toxicity: LOAEL: 10 mg/kg body weight<br>Result: Fetal mortality., No malformations were observed.<br><br>Test Type: Embryo-fetal development<br>Species: Rat<br>Application Route: Intraperitoneal<br>Developmental Toxicity: LOAEL: 50 mg/kg body weight<br>Result: Fetal mortality., No malformations were observed. |
| Reproductive toxicity - Assessment | : Positive evidence of adverse effects on development from human epidemiological studies.   |

### Betamethasone:

- |                                    |   |
|------------------------------------|---|
| Effects on fetal development       | : Species: Rabbit<br>Application Route: Intramuscular<br>Developmental Toxicity: LOAEL: 0.05 mg/kg body weight<br>Result: Fetotoxicity., Malformations were observed.<br><br>Species: Rat<br>Application Route: Subcutaneous<br>Developmental Toxicity: LOAEL: 0.42 mg/kg body weight<br>Result: Malformations were observed.<br><br>Species: Mouse<br>Application Route: Intramuscular<br>Developmental Toxicity: LOAEL: 1 mg/kg body weight<br>Result: Malformations were observed. |
| Reproductive toxicity - Assessment | : Clear evidence of adverse effects on development, based on animal experiments.  |

### STOT-single exposure

Not classified based on available information.

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### STOT-repeated exposure

Causes damage to organs (Pituitary gland, Immune system, muscle, thymus gland, Blood, Adrenal gland) through prolonged or repeated exposure.

#### Components:

##### Gentamicin:

|               |   |
|---------------|---|
| Target Organs | : Kidney, inner ear   |
| Assessment    | : Causes damage to organs through prolonged or repeated exposure. |

##### 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:

##### Gentamicin:

|                   |                        |
|-------------------|------------------------|
| Species           | : Dog                  |
| LOAEL             | : 3 mg/kg              |
| Application Route | : Intramuscular        |
| Exposure time     | : 12 Months            |
| Target Organs     | : Kidney               |
| Symptoms          | : Vomiting, Salivation |

|                   |                     |
|-------------------|---------------------|
| Species           | : Monkey            |
| LOAEL             | : 50 mg/kg          |
| Application Route | : Subcutaneous      |
| Exposure time     | : 3 Weeks           |
| Target Organs     | : Kidney, inner ear |

|                   |                                   |
|-------------------|-----------------------------------|
| Species           | : Monkey                          |
| LOAEL             | : 6 mg/kg                         |
| Application Route | : Intramuscular                   |
| Exposure time     | : 3 Weeks                         |
| Target Organs     | : Blood, Kidney, inner ear, Liver |

|                   |                 |
|-------------------|-----------------|
| Species           | : Rat           |
| NOAEL             | : 5 mg/kg       |
| LOAEL             | : 10 mg/kg      |
| Application Route | : Intramuscular |
| Exposure time     | : 52 Weeks      |
| Target Organs     | : Kidney, Blood |

|                   |                 |
|-------------------|-----------------|
| Species           | : Rat           |
| NOAEL             | : 12.5 mg/kg    |
| LOAEL             | : 50 mg/kg      |
| Application Route | : Intramuscular |
| Exposure time     | : 13 Weeks      |

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|| Target Organs : Kidney

### Betamethasone:

|| Species : Rabbit  
|| LOAEL : 0.05 %  
|| Application Route : Skin contact  
|| 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.

### Experience with human exposure

### Components:

#### Gentamicin:

|| Ingestion : Target Organs: Kidney  
|| Target Organs: inner ear  
|| Symptoms: Dizziness, Vertigo, hearing loss, tinnitus, fetal deafness

#### Betamethasone:

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

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

### Components:

#### Polyethylene glycol stearate:

|| Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 10,000 mg/l  
|| Exposure time: 96 h

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|   |   |
|---|---|
|   | Method: DIN 38412   |
| Toxicity to microorganisms                          | : EC10 (Bacteria): > 10,000 mg/l<br>Exposure time: 16 h   |
| <b>Gentamicin:</b>                                  |   |
| Toxicity to daphnia and other aquatic invertebrates | : EC50 (Daphnia magna (Water flea)): 86 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202<br><br>LC50 (Americamysis): 30 mg/l<br>Exposure time: 96 h<br>Method: US-EPA OPPTS 850.1035  |
| Toxicity to algae/aquatic plants                    | : EC50 (Pseudokirchneriella subcapitata (green algae)): 10 µg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br><br>NOEC (Pseudokirchneriella subcapitata (green algae)): 1.5 µg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br><br>EC50 (Anabaena flos-aquae (cyanobacterium)): 4.7 µg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br><br>NOEC (Anabaena flos-aquae (cyanobacterium)): 1.6 µg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201 |
| Toxicity to microorganisms                          | : EC50: 288.7 mg/l<br>Exposure time: 3 h<br>Test Type: Respiration inhibition<br>Method: OECD Test Guideline 209  |

### Betamethasone:

|   |  |
|---|--|
| Toxicity to daphnia and other aquatic invertebrates | : EC50 (Americamysis): > 50 mg/l<br>Exposure time: 96 h  |
| Toxicity to algae/aquatic plants                    | : EC50 (Pseudokirchneriella subcapitata (green algae)): > 34 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br>Remarks: No toxicity at the limit of solubility.<br><br>NOEC (Pseudokirchneriella subcapitata (green algae)): 34 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br>Remarks: No toxicity at the limit of solubility. |

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|  |   |
|--|---|
| Toxicity to fish (Chronic toxicity)                                    | : NOEC (Pimephales promelas (fathead minnow)): 0.052 mg/l<br>Exposure time: 32 d<br>Method: OECD Test Guideline 210 |
|  | NOEC (Oryzias latipes (Japanese medaka)): 0.07 µg/l<br>Exposure time: 219 d<br>Method: OECD Test Guideline 229      |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : NOEC (Daphnia magna (Water flea)): 8 mg/l<br>Exposure time: 21 d<br>Method: OECD Test Guideline 211               |

### Persistence and degradability

#### Components:

##### **Polyethylene glycol stearate:**

|                  |   |
|------------------|---|
| Biodegradability | : Result: Readily biodegradable.<br>Biodegradation: > 70 %<br>Exposure time: 10 d<br>Method: OECD Test Guideline 302B |
|------------------|---|

##### **Gentamicin:**

|                  |   |
|------------------|---|
| Biodegradability | : Result: rapidly degradable<br>Biodegradation: 100 %<br>Exposure time: 28 d<br>Method: OECD Test Guideline 314 |
|------------------|---|

### Bioaccumulative potential

#### Components:

##### **Gentamicin:**

|  |                 |
|--|-----------------|
| Partition coefficient: n-octanol/water | : log Pow: < -2 |
|--|-----------------|

##### **Betamethasone:**

|  |                 |
|--|-----------------|
| Partition coefficient: n-octanol/water | : log Pow: 2.11 |
|--|-----------------|

### Mobility in soil

No data available

### Other adverse effects

No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

|                        |  |
|------------------------|--|
| Waste from residues    | : Dispose of in accordance with local regulations.<br>Do not dispose of waste into sewer.        |
| Contaminated packaging | : Empty containers should be taken to an approved waste handling site for recycling or disposal. |

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If not otherwise specified: Dispose of as unused product.

### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

##### UNRTDG

|                           |  |
|---------------------------|--|
| UN number                 | : UN 3082  |
| Proper shipping name      | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.<br>(Gentamicin, Benzalkonium chloride) |
| Class                     | : 9  |
| Packing group             | : III  |
| Labels                    | : 9  |
| Environmentally hazardous | : yes  |

##### IATA-DGR

|  |  |
|--|--|
| UN/ID No.                                | : UN 3082  |
| Proper shipping name                     | : Environmentally hazardous substance, liquid, n.o.s.<br>(Gentamicin, Benzalkonium chloride) |
| Class                                    | : 9  |
| Packing group                            | : III  |
| Labels                                   | : Miscellaneous  |
| Packing instruction (cargo aircraft)     | : 964  |
| Packing instruction (passenger aircraft) | : 964  |
| Environmentally hazardous                | : yes  |

##### IMDG-Code

|                      |  |
|----------------------|--|
| UN number            | : UN 3082  |
| Proper shipping name | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.<br>(Gentamicin, Benzalkonium chloride) |
| Class                | : 9  |
| Packing group        | : III  |
| Labels               | : 9  |
| EmS Code             | : F-A, S-F   |
| Marine pollutant     | : yes  |

#### Transport in bulk according to IMO instruments

Not applicable for product as supplied.

#### Domestic regulation

##### 49 CFR

|                      |  |
|----------------------|--|
| UN/ID/NA number      | : UN 3082  |
| Proper shipping name | : Environmentally hazardous substance, liquid, n.o.s.<br>(Gentamicin, Benzalkonium chloride) |
| Class                | : 9  |
| Packing group        | : III  |
| Labels               | : CLASS 9  |
| ERG Code             | : 171  |
| Marine pollutant     | : yes(Gentamicin, Benzalkonium chloride)   |
| Remarks              | : Above applies only to containers over 119 gallons or 450 liters.                           |



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Shipment by ground under DOT is non-regulated; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

### 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.

## SECTION 15. REGULATORY INFORMATION

### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Reproductive toxicity  
Specific target organ toxicity (single or repeated exposure)

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### US State Regulations

#### Pennsylvania Right To Know

|                                |            |
|--------------------------------|------------|
| Water                          | 7732-18-5  |
| Polyethylene glycol stearate   | 9004-99-3  |
| Polyethylene glycol castor oil | 61791-12-6 |

#### California Prop. 65

WARNING: This product can expose you to chemicals including Gentamicin, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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

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

## SECTION 16. OTHER INFORMATION

### Further information

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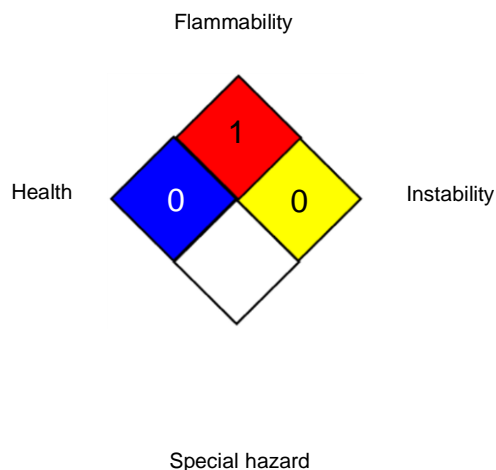
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### NFPA 704:



### HMIS® IV:

|                 |   |   |
|-----------------|---|---|
| HEALTH          | * | 3 |
| FLAMMABILITY    |   | 1 |
| PHYSICAL HAZARD |   | 0 |

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
ACGIH / TWA : 8-hour, time-weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance

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Inventory; 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

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

Revision Date : 06/17/2025

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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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