



## Zoledronic acid Injection

### SAFETY DATA SHEET

North America GHS

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations & the Hazardous Products Regulation (February 11, 2015) & NORMA Oficial Mexicana NOM-018-STPS-2015

#### 1. IDENTIFICATION

##### Product identifier

**Product Name:** Zoledronic acid Injection

**Synonyms:** Zoledronic Acid Injection Mylan 4 mg/5 mL (0.8 mg/mL); Zoledronic Acid Concentrate for Intravenous Infusion; Zoledronic Acid Injection, 5 mg/100 mL Solution for Intravenous Infusion; Zoledronic Acid Infusion Bag-Sterile Solution; Zoledronic Acid Injection, 0.05 mg/mL Solution for Intravenous Infusion; Zoledronic Acid 5 mg/100mL Single-Dose Vial

##### Other means of identification

**Other Information:** No other information

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

**Recommended Use:** Pharmaceutical. Use only as directed.

The intent of this safety data sheet (SDS) is to provide safety information for occupational handling of this product. This information may not be relevant for medical use of this product. Patients/ consumers should consult the package insert/ product label/ physician/ pharmacist for information regarding the usage of this product. For information on the ingredients used in this product, refer to the appropriate SDS for each ingredient.

**Uses advised against:** No information available.

##### Details of the supplier of the safety data sheet

Mylan Inc.  
Robert J. Coury Global Center  
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Canonsburg, PA 15317, USA  
+1.724.514.1800

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**Contact e-mail:**

[SDScontact@mylan.com](mailto:SDScontact@mylan.com)

##### Emergency telephone number

**Emergency Telephone:**

24 hr. Emergency Contact ChemTel  
**International:** +1-813-248-0585  
**US & Canada:** 1-800-255-3924  
**Mexico:** 800-099-0731

##### Other Contact Information

**FDA Adverse Events Reporting Number:**

For reporting adverse health events call:  
+1 877-446-3679

#### 2. HAZARDS IDENTIFICATION

*Pharmaceutical Agent – Handling of this product in its final form presents minimal occupational exposure risk*

**Patients/Consumers:** Please refer to the product information insert or product label for appropriate consumer-specific information about this product when used according to the physician's directions

##### Classification

Reproductive toxicity, Category 2

##### Label elements



**Signal word:**

Danger

<b>Hazard statements:</b>	H361 - Suspected of damaging fertility or the unborn child
<b>Precautionary Statements - Prevention:</b>	Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required
<b>Precautionary Statements - Response:</b>	IF exposed or concerned: Get medical advice/attention
<b>Precautionary Statements - Storage:</b>	Store locked up
<b>Precautionary Statements - Disposal:</b>	Dispose of contents/container to an approved waste disposal plant
<b>Other Hazards</b>	
No information available.	
<b>Unknown acute toxicity</b>	
No information available	

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Mixture

Chemical name	CAS No	Weight-%	Hazard statements
Zoledronic Acid Monohydrate	165800-06-6	0.005 - 0.08%	H302 - Harmful if swallowed H315 - Causes skin irritation H319 - Causes serious eye irritation H361 - Suspected of damaging fertility or the unborn child H372 - Causes damage to organs through prolonged or repeated exposure H411 - Toxic to aquatic life with long lasting effects

### 4. FIRST AID MEASURES

This is a pharmaceutical product in its final form. The risk of harmful exposure in the workplace is limited; however, the following guidance may be used as needed.

#### Description of first aid measures

**Overdose:** Refer to information on package labeling and packaging. In case of overdose, get medical help or contact a Poison Control Center right away.

**General advice:** Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.

**Inhalation:** IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if symptoms occur.

**Skin contact:** Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a physician.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

**Ingestion:** Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

**Self-protection of the first aider:** First aider: Pay attention to self-protection. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

#### Most important symptoms and effects, both acute and delayed

**Symptoms:** Fever, Muscle Pain, Bone Pain, Headache, Nausea, Vomiting, Diarrhea, and Eye Inflammation.

**Chronic symptoms:** Contains material that may cause adverse reproductive effects. May cause damage to the following organs through prolonged or repeated exposure: bones.

#### Indication of any immediate medical attention and special treatment needed

Treat symptomatically. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### 5. FIRE-FIGHTING MEASURES

#### Extinguishing media

**Suitable Extinguishing Media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media:** None known.

#### Specific hazards arising from the chemical

**Fire hazard:** Not flammable.

**Explosive hazard:** Not an explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

**Hazardous combustion products:** Carbon oxides. Nitrogen oxides. Phosphorus oxides.

#### Advice for firefighters

**Precautionary measures in case of fire:** Standard procedure for chemical fires.

**Firefighting instructions:** Use water spray or fog; do not use straight streams.

**Protection of Firefighters:** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

**Other Information:** Refer to Section 9 for flammability properties.

## 6. ACCIDENTAL RELEASE MEASURES

This is a pharmaceutical product in its final form. The risk of harmful exposure in the workplace is limited; however, the following guidance may be used as needed.

### **Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.

#### **For non-emergency personnel**

**Personal Protective Equipment:** Use personal protective equipment as required.

**Emergency procedures:** Evacuate personnel to safe areas.

#### **For emergency responders**

**Personal Protective Equipment:** Use personal protective equipment as required.

**Emergency procedures:** Evacuate personnel to safe areas. Ventilate the area. Eliminate all ignition sources if safe to do so.

**Other Information:** Refer to protective measures listed in Sections 7 and 8.

### **Environmental precautions**

Do not flush into surface water or sanitary sewer system. Should not be released into the environment. See Section 12 for additional Ecological Information.

### **Methods and material for containment and cleaning up**

**Methods for containment:** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up:** Use appropriate personal protective equipment (PPE). Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. For spills: Soak up with inert absorbent material. Use clean non-sparking tools to collect absorbed material. Avoid breathing dust or spray mist.

**Prevention of secondary hazards:** Clean contaminated objects and areas thoroughly observing environmental regulations.

### **Reference to other sections**

See section 8 for more information. See section 13 for more information.

## 7. HANDLING AND STORAGE

### **Precautions for safe handling**

**Patients/Consumers:** Patients should adhere to the instructions provided within the product information insert or product label for appropriate consumer-specific information about this product when used according to the physician's directions.

**Hygiene measures:** This SDS is for a pharmaceutical agent - Handling of this product in its final form presents minimal occupational exposure risk. In an occupational setting, handle in accordance with good industrial hygiene and safety procedures. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use appropriate personal protective equipment when handling and observe good personal hygiene measures after handling.

**Advice on safe handling:** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

### **Conditions for safe storage, including any incompatibilities**

**Storage Conditions:** Sterile product. Discard if opened in non-aseptic environment. Keep at temperatures between 20 and 25 °C (68 and 77 °F). Keep containers tightly closed in a dry, cool and well-ventilated place. Do not re-use. Once opened, discard.

**Specific end use(s):** Pharmaceutical. Use only as directed. Refer to product insert for usage instructions and product information.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

This is a pharmaceutical product in its final form. The risk of harmful exposure in the workplace is limited; however, the following guidance may be used as needed.

### **Control parameters**

**Exposure Limits:** No information available

### **Exposure controls**

**Appropriate engineering controls:** Site-specific risk assessments should be conducted to determine the appropriate exposure control measures. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

### **Individual protection measures, such as personal protective equipment**

**Hand protection:** Wear suitable gloves.

**Eye/face protection:** Safety glasses with side shields are recommended for medical or industrial exposures.

**Skin and body protection:** Wear suitable protective clothing.

**Respiratory protection:** Use appropriate respiratory protection.

**General hygiene considerations:** Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state:</b>	Liquid
<b>Appearance:</b>	aqueous solution
<b>Color:</b>	clear, colorless
<b>Odor:</b>	No data available
<b>Odor threshold:</b>	No data available
<b>pH:</b>	5.7 - 7
<b>Melting point / freezing point:</b>	No data available
<b>Boiling point / boiling range:</b>	No data available
<b>Flash point:</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper flammability limit:</b>	No data available
<b>Lower flammability limit:</b>	No data available
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative density:</b>	No data available
<b>Water solubility:</b>	No data available
<b>Solubility in other solvents:</b>	No data available
<b>Partition coefficient:</b>	No data available
<b>Autoignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Kinematic viscosity:</b>	No data available
<b>Dynamic viscosity:</b>	No data available
<b>Explosive properties:</b>	No data available
<b>Oxidizing properties:</b>	No data available
<b>Other Information</b>	
<b>VOC Content (%):</b>	No data available

**10. STABILITY AND REACTIVITY****Reactivity**

Hazardous reactions will not occur under normal conditions.

**Chemical stability**

Stable under normal conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Conditions to avoid**

Extremes of temperature and direct sunlight.

**Incompatible materials**

Strong oxidizing agents, strong acids, and strong bases.

**Hazardous decomposition products**

Decomposition will not occur under normal conditions.

**11. TOXICOLOGICAL INFORMATION****Information on toxicological effects****Information on likely routes of exposure**

**Inhalation:** Not an expected route of exposure. Specific test data for the substance or mixture is not available.

**Ingestion:** Not an expected route of exposure. May be harmful if swallowed.

**Eye contact:** Not an expected route of exposure. May cause irritation.

**Skin contact:** May cause irritation.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms:** Fever, Muscle Pain, Bone Pain, Headache, Nausea, Vomiting, Diarrhea, and Eye Inflammation.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation:** May cause skin irritation.

**Serious eye damage/eye irritation:** May cause eye irritation.

**Respiratory or skin sensitization:** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

**Carcinogenicity:** Based on available data, the classification criteria are not met.

**Reproductive toxicity:** Based on available data, the classification criteria are not met.

**STOT - single exposure:** Based on available data, the classification criteria are not met.

**STOT - repeated exposure:** Based on available data, the classification criteria are not met.

**Aspiration hazard:** Based on available data, the classification criteria are not met.

**Numerical measures of toxicity**

**Acute toxicity:** No information available

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

No information available.

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

**Other adverse effects**

No information available.

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable. Dispose of waste in accordance with environmental legislation. Do not flush into surface water or sanitary sewer system.

## 14. TRANSPORT INFORMATION

Transportation requirements can vary based on numerous factors such as regional regulations and shipment volume. It is the responsibility of the transporting organization to ensure compliance with all applicable laws and regulations regarding the transportation of this product.

**In accordance with DOT / ICAO / IATA / TDG**

**UN Number**

Not regulated

**UN proper shipping name**

Not regulated

**Transport hazard class(es)**

Hazard Class: Not regulated

**Packing group**

Not regulated

**Environmental hazards**

No

**Special precautions for user**

No information available

**Transport in bulk according to Annex II of MARPOL and the IBC Code**

Not applicable

## 15. REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**International Regulations**

**Ozone-depleting substances (ODS):** Not applicable

**Persistent Organic Pollutants:** Not applicable

**The Rotterdam Convention:** Not applicable

**US Federal Regulations**

**SARA 313:** Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**U.S. State Right-to-Know Regulations**

**US State Regulations:** This product does not contain any substances regulated by state right-to-know regulations

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all

the information required by the CPR.

## 16. OTHER INFORMATION

**Revision Date:** 03-December-2019

**Other Information:** This document has been prepared in accordance with standards for workplace safety. The precautionary statements and warning included might not apply in all cases. Your needs may vary depending on the potential for exposure in your workplace.

### **Key or legend to abbreviations and acronyms used in the safety data sheet:**

#### **Legend, Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA: TWA (time-weighted average)

STEL: STEL (Short Term Exposure Limit)

#### **Party responsible for the preparation of this document:**

Mylan Global Environmental, Health, and Safety Department - Occupational Toxicology

Phone number: +1 304-559-2595

*This SDS has been prepared for occupational exposure and intended to address some end-user concerns; however, patients/consumers are also strongly encouraged to review the product information insert or product label for consumer-specific information about this product.*

*Patients/Consumers: Refer to the package insert or product label for appropriate consumer-specific information about this product when used according to manufacturer's directions. To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for completeness of the information herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

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