SAFETY DATA SHEET



Order Customer Number Number

Identification of the substance/preparation and of the company/undertaking 1.

Clodronate, Disodium Salt **Product name**

Catalog #

: 233183 : Manufactured by EMD Biosciences, Inc.

Chemical formula CH₂Cl₂O₆P₂Na₂ 4H₂O **Supplier** 10394 Pacific Center Court

San Diego, CA 92121 (858)450-5558/(800)854-3417

FAX: (858)453-3552

Not available Synonym

Emergency

Call Chemtrec®

telephone number (800)424-9300 (within U.S.A.) (703)527-3887 (outside U.S.A.)

2. Composition / information on ingredients

Substance/Preparation : Substance

Chemical name* CAS No. EC Number Symbol **R-Phrases** Clodronate, Disodium Salt 22560-50-5 Not available.

Hazards identification 3.

Physical/chemical hazards : Not applicable.

First-aid measures 4.

First-Aid measures

Eye Contact

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen

tight clothing such as a collar, tie, belt or waistband.

Skin Contact In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes.

Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at

least 15 minutes. Get medical attention.

Aggravating conditions Repeated or prolonged exposure is not known to aggravate medical condition.

5. Fire-fighting measures

Flammability of the Product

Extinguishing Media

Suitable

: May be combustible at high temperature.

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

products

Hazardous thermal (de)composition : These products are carbon oxides (CO, CO2), halogenated compounds, phosphates. Some metallic oxides.

: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Special fire-fighting procedures Protection of fire-fighters : Be sure to use an approved/certified respirator or equivalent.

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Accidental release measures 6.

Personal precautions Small Spill and Leak : Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill and Leak

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading

water on the contaminated surface and allow to evacuate through the sanitary systen

7. Handling and storage

Handling

: Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust.

Storage

: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 4°C (39.2°F).

Packaging materials Recommended use

: Use original container.

Exposure controls/personal protection 8.

Engineering measures

: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Hygiene measures

: Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Ingredient Name Clodronate, Disodium Salt **Occupational Exposure Limits**

Not available.

Personal protective equipment

Skin and body : Lab coat. Eyes Safety glasses.

Protective Clothing (Pictograms)



9. Physical and chemical properties

Physical state

Color

Solid. White.

Molecular Weight

360.9 g/mole

Solubility

Not available.

Flash point

Not available.

Explosive properties

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Stability and reactivity

Stability

The product is stable.

Conditions to avoid

: Not available

Hazardous Decomposition Products

: These products are carbon oxides (CO, CO2), halogenated compounds, phosphates. Some metallic oxides.

Toxicological information

RTECS #

: SZ7640700

Local effects

Skin irritation

Not available.

Acute toxicity

LD50: Not available. LC50: Not available.

Chronic toxicity

Repeated or prolonged exposure is not known to aggravate medical condition.

Other Toxic Effects on

Humans

Not available.

No specific information is available in our database regarding the other toxic effects of this material for

humans.

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Not available.

Not available.

Not available. Carcinogenic effects **Mutagenic effects** : Not available. Reproduction toxicity Not available. **Teratogenic effects** : Not available.

Ecological information

Ecotoxicity

: Not available.

Toxicity of the Products of **Biodegradation**

: The products of degradation are more toxic than the product itself.

Disposal considerations

Methods of disposal; Waste of residues; Contaminated packaging : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Transport information

International transport regulations

Land - Road/Railway

ADR/RID Class : Not controlled under ADR (Europe).

Sea

<u>Air</u>

IMDG Class : Not controlled under IMDG.

IATA-DGR Class

: Not controlled under IATA.

Special Provisions for Transport

Not applicable.

15. Regulatory information

EU Regulations

Risk Phrases : This product is not classified according to the EU regulations.

U.S. Federal Regulations

TSCA: No products were found.

SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

SARA 313 toxic chemical notification and release reporting: No products were found.

Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 accidental release prevention: No products were found. Clean air act (CAA) 112 regulated flammable substances: No products were found. Clean air act (CAA) 112 regulated toxic substances: No products were found.

HCS Classification Not controlled under the HCS (United States).

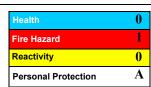
State Regulations

WHMIS (Canada) : Not controlled under WHMIS (Canada).

No products were found.

16. Other information

Hazardous Material Information System (U.S.A.)



National Fire Protection Association (U.S.A.)



Notice to Reader

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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 the accuracy or completeness of the information contained 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.

	Date of issue	
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