

Section 1. Product and Company Identification

**Product Name** Erythromycin  
**CAS Number** 114-07-8

**Parchem - fine & specialty chemicals**  
**415 Huguenot Street**  
**New Rochelle, NY 10801**  
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EMERGENCY RESPONSE NUMBER  
CHEMTEL  
Toll Free US & Canada: 1 (800) 255-3924  
All other Origins: 1 (813) 248-0585  
Collect Calls Accepted

Section 2. Hazards Identification

**Classification of the substance or mixture**

**GHS Classification**

Eye Irritation (Category 2B)  
Acute Toxicity - Oral (Category 5)  
Acute Aquatic Toxicity (Category 1)

**GHS Label Elements**

**Pictograms:**



**Signal word:** WARNING

**Hazard and precautionary statements**

**Hazard Statements**

Causes eye irritation.  
May be harmful if swallowed.  
Very toxic to aquatic life.

**Australia-Only Hazards**

Repeated exposure may cause skin dryness or cracking.

**Precautionary Statements**

**Prevention**

Wash thoroughly after handling.  
Avoid release to the environment.

**Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. COLLECT SPILLAGE

**Storage**

Not applicable

**Disposal**

Dispose of contents and/or container in accordance with local regulations.

Section 3. Composition / Information on Ingredients

**Common Name** Erythromycin  
**Synonym(s)** Erythromycin A: (3R\*,4S\*,5S\*,6R\*,7R\*,9R\*,11R\*,12R\*,13S\*,14R\*)-4-[(2,6-Dideoxy-3-C-methyl- $\alpha$ -L-ribo-hexopyranosyl)oxy]-14-ethyl-7,12,13-trihydroxy-3,5,7,9,11,13-hexamethyl-6-[[3,4,6-trideoxy-3-(dimethylamino)- $\beta$ -D-xylo-hexopyranosyl]oxy]oxacyclotetradecane-2,10-dione  
**Formula** C<sub>37</sub>H<sub>67</sub>NO<sub>13</sub>  
**CAS Number** 114-07-8

COMPONENT	CAS NUMBER	CONCENTRATION
Erythromycin	114-07-8	100%

Section 4. First Aid Measures

**Eye Contact:** Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek medical aid.

**Skin Contact:** Wash with soap & water for 15 minutes. If irritation persists seek medical aid.

**Ingestion:** Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice.

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician

**Symptoms and Effects:** Not expected to present a significant hazard under anticipated conditions of normal use.

Section 5. Firefighting Measures

**Specific Hazards arising From the Chemical:** Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.

**Flammable Properties:** May be combustible at high temperature

**Hazardous Combustion Products:** Under fire conditions, hazardous fumes will be present.

**Extinguishing Media**

**Small Fire:** Dry chemical, CO<sub>2</sub>, or water spray.

**Large Fire:** Dry chemical, CO<sub>2</sub>, alcohol resistant foam, or water spray. Do not get water inside containers.



**Protective Equipment and Precautions for Firefighters:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**Dust explosion properties:** Kst 176 bar\*m/s  
Minimum explosive concentration (MEC) 35 g/m<sup>3</sup>  
Minimum ignition energy (MIE) - dust cloud 50 mJ

Section 6. Accidental Release Measures

**Personal Precautions:** Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Methods & Material For Containment:** On land, sweep or shovel into suitable containers. Minimize generation of dust.

**Cleanup Procedure:** Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Shut off all sources of ignition. Evacuate the area. If necessary, employ water fog to disperse the vapors. Absorb the matter with compatible vermiculite or other absorbing material. Place in a suitable container and retain for disposal. Ventilate and clean the affected area. Do not flush into sewerage system or to drains.

Section 7. Handling and Storage

**Precautions for safe handling:** Do not inhale. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling.

**Storage Conditions:** Store in original container, tightly sealed, protected from direct sunlight, in a dry and well-ventilated area, away from incompatible materials. Store in accordance with local regulations. Eliminate all ignition sources. Separate from oxidizing materials. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Preserve in tight containers. Protect from light.

Section 8. Exposure Controls / Personal Protection

	TWA	Ceiling	STEL	REL	IDLH	Remarks
OSHA PEL	N/L	N/L	-	-	-	-
ACGIH TLV	N/L	N/L	N/L	-	-	-
NIOSH	N/L	N/L	N/L	N/L	N/L	-
AIHA WEEL		N/L	N/L	-	-	-
Safe Work Australia HSIS	N/L	N/L	N/L	-	-	-



HSE	N/L	N/L	N/L	-	-	-
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N/L = Not Listed

**Exposure Guidelines:** Consult local authorities for provincial or state exposure limits. Particulates not otherwise regulated, respirable fraction: 5 mg/m<sup>3</sup>.

#### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by WHMIS or OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** Follow WHMIS or OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Specific Engineering Controls:** Adequate mechanical ventilation. Fume hood, eye wash station, and safety shower.

**Notes:** USP: TWA: 0.1 mg/m<sup>3</sup>

#### Section 9. Physical and Chemical Properties

**Physical Form:** Solid

**Description:** White or slightly yellow, crystalline powder. Is odorless or practically odorless. Slightly hygroscopic.

**Solubility:** Slightly soluble in water; soluble in alcohol, in chloroform, and in ether.

**Odor:** Odorless or practically odorless

**Flammability:** May be combustible at high temperature

**Odor Threshold:** Not available

**pH:** 8 - 10.5 (Saturated Solution)

**Melting Point:** 133 - 140°C (271.4 - 284°F)

**Boiling Point:** Not available

**Freezing Point:** 133 - 140°C (271.4 - 284°F)

**Flash Point:** Not available

**Specific Gravity:** Not available

**Evaporation Rate:** Not available

**Explosive Limit:** Not available

**Upper Flammable/Explosive Limit(s):** Not available

**Lower Flammable/Explosive Limit(s):** Not available

**Vapor Pressure:** Not available

**Vapor Density (Air = 1):** Not available

**Relative Density (Water = 1):** Not available

**Log P (Octanol - Water):** 3.06

**Auto-ignition Temperature:** Not available

**Decomposition Temperature:** Not available

**Viscosity:** Not available

**Notes:** \*Resolidifies with second melting point at 190 - 193°C (374 - 379.4°F)

Section 10. Stability and Reactivity

**Reactivity:** Not established

**Stability:** Stable under recommended storage conditions

**Materials To Avoid:** Strong oxidants

**Hazardous Decomposition Products:** Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides and other gases may occur

**Hazardous Polymerization:** Will not occur

**Possibility of Hazardous Reaction:** Not established

**Conditions To Avoid:** Moisture, sunlight and extreme temperatures

Section 11. Toxicological Information

**Acute Toxicity**

**Oral LD50 - Rat:** 4600 mg/kg

**Dermal LD50 - Rabbit:** Not available

**Inhalation LD50 - Rat:** Not available

**Skin Corrosion/Irritation**

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

Local effects

Irritancy, 5% solution

Result: Irritant

Species: Rabbit

Organ: Skin

Severity: Slight

**Serious Eye Damage/Eye Irritation:** Causes eye irritation.

**Respiratory or Skin Sensitization**

Respiratory sensitization: Due to lack of data the classification is not possible.

Skin sensitization: Based on available data, the classification criteria are not met.

Sensitization

Result: Negative

Species: Guinea pig

Organ: Skin

**Germ Cell Mutagenicity**

Due to lack of data the classification is not possible.

Data from germ cell mutagenicity tests were not found.

Mutagenicity



Ames test in Salmonella typhimurium without activation

Result: Negative

E. coli polA without S9

Result: Negative

### **Carcinogenicity**

**OSHA:** Erythromycin is not listed.

**NTP:** Erythromycin is not listed.

**IARC:** Erythromycin is not evaluated.

**California Proposition 65:** This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

### **Additional Carcinogenicity Information**

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

#### **Long-term studies**

Result: Negative

Species: Rat

Test Duration: 2 years

**Reproductive Toxicity:** Due to lack of data the classification is not possible. Epidemiological studies have shown conflicting results concerning an association between therapeutic use of erythromycin during pregnancy and an increased risk of malformations.

**Specific Target Organ Toxicity - Single Exposure:** Based on available data, the classification criteria are not met.

**Specific Target Organ Toxicity - Repeated Exposure:** Based on available data, the classification criteria are not met.

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

### **Signs and Symptoms of Exposure**

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

Macrolide antibiotics: Nausea. Vomiting. Abdominal pain. Diarrhea. Taste perversion. Yellow eyes or skin. Hearing loss. Ringing in ears. Fever.

#### **Delayed and immediate effects of exposure:**

Macrolide antibiotics: Cholestasis. Blood disorders. Ototoxicity. Superinfection. Pseudomembranous colitis. Irregular heart rate.

**Cross sensitivity:** Persons sensitive to one erythromycin or macrolide may be sensitive to this material also.

**Medical conditions aggravated by exposure:** Macrolide antibiotics: Liver or kidney impairment. Cardiac arrhythmias. Sjögren's syndrome. Myasthenia gravis. Porphyria. Hearing disorders.



### Potential Health Effects

**Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation. May cause allergic reaction.

**Ingestion:** May be harmful if swallowed.

**Skin:** May be harmful if absorbed through skin. May cause skin irritation. May cause allergic reaction.

**Eyes:** Causes eye irritation.

### Section 12. Ecological Information

#### Toxicity

EC50: 48 Hr: Crustacea: (mg/L): 0.0227

LC50: 96 Hr: Fish: (mg/L): 266 - 457

IC50: 72 Hr: Algae: (mg/L): Not available

**Persistence and Degradability:** Not available

**Bioaccumulative Potential:** logPow: 3.06

#### Mobility in Soil

Water solubility: 1.440 mg/L (25°C)

Henry's Law Constant: 5.42E-29 atm-m<sup>3</sup>/mole (25°C)

**Other Adverse Effects:** Not available

This product is not intended to be released into the environment

### Section 13. Disposal Considerations

**Waste Treatment Methods:** Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

### Section 14. Transport Information

#### United States & Canada

**UN Proper Shipping Name:** Environmentally Hazardous Substance, Solid, N.O.S.

**UN Number:** 3077

**Class:** 9

**Packing Group:** III

#### Australia

**UN Proper Shipping Name:** Environmentally Hazardous Substance, Solid, N.O.S.

**UN Number:** 3077

**Class:** 9

**Packing Group:** III

**Hazchem:** 2Z



**Environmental Hazards:** Not available  
**Special Shipping Information:** Not applicable

Section 15. Regulatory Information

**CERCLA 40 CFR Part 302.4:** Not Listed  
**SARA (Title III) 40 CFR Part 372.65:** Not Listed

**EPA 40 CFR Part 365**  
**Appendix A:** Not Listed  
**Appendix B:** Not Listed

**Pennsylvania Right to Know:** Not Listed  
**New Jersey Right to Know:** Not Listed  
**Massachusetts Right to Know:** Not Listed

**California Prop 65:** Not Listed

**Australian Regulations**  
**Poisons and Therapeutic Goods Regulation:** Not listed  
**Therapeutic Goods Act:** Listed as Schedule 4  
**Code of Practices - Illicit Drug Precursors:** Not listed

**HMIS Rating**  
**Health:** 1  
**Flammability:** 0  
**Reactivity:** 0  
**Personal Protection:** E

Section 16. Other Information

**Disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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