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according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2015/830 and US OSHA HCS 2015

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

**1.1 Product Code:** 15004

Product Name: Azithromycin

**Synonyms:** (2R,3S,4R,5R,8R,10R,11R,12S,13S,14R)-13-[(2,6-dideoxy-3-C-methyl-3-O-methyl-.alpha.-L-rib

o-hexopyranosyl)oxy]-2-ethyl-3,4,10-trihydroxy-3,5,6,8,10,12,14-heptamethyl-11-[[3,4,6-trideoxy-

3-(dimethylamino)-.beta.-D-xylo-hexopyranosyl]oxy]-1-oxa-6-azacyclopentadecan-15-one; CP

62,993; Zithromax®;

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Relevant identified uses: For research use only, not for human or veterinary use.

1.3 Details of the Supplier of the Safety Data Sheet:

Company Name: Cayman Chemical Company

1180 E. Ellsworth Rd. Ann Arbor, MI 48108

Web site address: www.caymanchem.com

Information: Cayman Chemical Company +1 (734)971-3335

1.4 Emergency telephone number:

Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300

CHEMTREC Outside USA and Canada: +1 (703)527-3887

#### Section 2. Hazards Identification

#### 2.1 Classification of the Substance or Mixture:

**Respiratory Sensitization, Category 1** 

Skin Sensitization, Category 1

Specific Target Organ Toxicity (repeated exposure), Category 1

Aquatic Toxicity (Acute), Category 1
Aquatic Toxicity (Chronic), Category 1

2.2 Label Elements:





GHS Signal Word: Danger

#### **GHS Hazard Phrases:**

H317: May cause an allergic skin reaction.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H372: Causes damage to organs {liver} through prolonged or repeated exposure.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

#### **GHS Precaution Phrases:**

P260: Do not breathe {dust/fume/gas/mist/vapors/spray}.

P264: Wash {hands} thoroughly after handling.

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release to the environment.

P280: Wear {protective gloves/protective clothing/eye protection/face protection}.

P285: In case of inadequate ventilation wear respiratory protection.

#### **GHS Response Phrases:**

P302+352: IF ON SKIN: Wash with plenty of soap and water.





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P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P314: Get medical attention/advice if you feel unwell.

P333+313: If skin irritation or rash occurs, seek medical advice/attention.

P342+311: If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.

P362+364: Take off contaminated clothing and wash it before reuse.

P391: Collect spillage.

#### **GHS Storage and Disposal Phrases:**

Please refer to Section 7 for Storage and Section 13 for Disposal information.

2.3 Adverse Human Health Causes damage to organs {liver} through prolonged or repeated exposure.

Effects and Symptoms: Material may be irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation, ingestion, or skin absorption.

May cause eye, skin, or respiratory system irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Very toxic to aquatic life with long lasting effects.

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

#### Section 3. Composition/Information on Ingredients

CAS#/	Hazardous Components (Chemical Name)/	Concentration	EC No./	GHS Classification
RTECS #	REACH Registration No.		EC Index No.	
83905-01-5	Azithromycin	100.0 %	617-500-5	Skin Sens. 1: H317
RN6960000	01-2120047115-66		NA	Resp. Sens. 1: H334
				STOT (RE) 1: H372
				Aquatic (A) 1: H400
				Aquatic (C) 1: H410

#### Section 4. First Aid Measures

#### 4.1 Description of First Aid

Measures:

**In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel.

Get immediate medical attention.

In Case of Skin Contact: Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated

clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined

and tested by medical personnel.

In Case of Ingestion: Wash out mouth with water provided person is conscious. Never give anything by mouth to an

unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by

medical personnel.



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### Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

Unsuitable Extinguishing A solid water stream may be inefficient.

Media:

**5.2** Flammable Properties and No data available.

Hazards:

No data available.

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

5.3 Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or

equivalent), and full protective gear to prevent contact with skin and eyes.

#### Section 6. Accidental Release Measures

**6.1 Protective Precautions,** Avoid raising and breathing dust, and provide adequate ventilation.

Protective Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,

**Emergency Procedures:** and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental** Take steps to avoid release into the environment, if safe to do so.

**Precautions:** 

**6.3 Methods and Material For** Contain spill and collect, as appropriate.

Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.

Up:

## Section 7. Handling and Storage

**7.1 Precautions To Be Taken** Avoid breathing dust/fume/gas/mist/vapours/spray.

in Handling: Avoid prolonged or repeated exposure.

**7.2** Precautions To Be Taken Keep container tightly closed.

in Storing: Store in accordance with information listed on the product insert.

# Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters:

8.2 Exposure Controls:

8.2.1 Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne

(Ventilation etc.): levels below recommended exposure limits.

8.2.2 Personal protection equipment:

**Eye Protection:** Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

Other Protective Clothing: Lab coat

**Respiratory Equipment** NIOSH approved respirator, as conditions warrant.

(Specify Type):

Work/Hygienic/Maintenan Do not take internally.

ce Practices: Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.

Wash thoroughly after handling.

No data available.



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Section 9. Physical and Chemical Properties 9.1 Information on Basic Physical and Chemical Properties **Physical States:** [ ] Gas [ ] Liquid [X] Solid Appearance and Odor: A crystalline solid pH: No data. **Melting Point:** No data. **Boiling Point:** No data. Flash Pt: No data. **Evaporation Rate:** No data. Flammability (solid, gas): No data available. **Explosive Limits:** LEL: No data. UEL: No data. Vapor Pressure (vs. Air or mm No data. Vapor Density (vs. Air = 1): No data. Specific Gravity (Water = 1): No data. Solubility in Water: No data. **Solubility Notes:** ~0.5 mg/ml in a 1:1 solution of EtOH:PBS (pH 7.2); ~5 mg/ml in DMSO; ~16 mg/ml in EtOH & DMF; **Octanol/Water Partition** No data. Coefficient: **Autoignition Pt:** No data. **Decomposition Temperature:** No data. No data. Viscosity: 9.2 Other Information **Percent Volatile:** No data. C38H72N2O12 749.0 Molecular Formula & Weight: Section 10. Stability and Reactivity No data available. 10.1 Reactivity: Unstable [ ] Stable [X] Stability:

10.2 Stability: Unstable [ ] Stable [ X ]
10.3 Stability Note(s): Stable if stored in accordance with information listed on the product insert.
Polymerization: Will occur [ ] Will not occur [ X ]

10.4 Conditions To Avoid: No data available.10.5 Incompatibility - Materials strong oxidizing agents

To Avoid:

10.6 Hazardous carbon dioxide

Decomposition or carbon monoxide

Byproducts: nitrogen oxides



Information on

11.1

## SAFETY DATA SHEET Azithromycin

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Section 11. Toxicological Information

Azithromycin - Toxicity Data: Oral TDLO (human): 21 mg/kg/3D (intermittent); Oral LD50 (rat): >2 **Toxicological Effects:** 

The toxicological effects of this product have not been thoroughly studied.

g/kg; Intraperitoneal LDLO (rat): 900 mg/kg; Oral LD50 (mouse): 3 g/kg; Intraperitoneal LDLO

(mouse): 400 mg/kg; Oral TDLO (woman): 10 mg/kg;

Azithromycin - Investigated as a drug and reproductive effector. **Chronic Toxicological** 

Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. Effects:

See actual entry in RTECS for complete information.

Azithromycin RTECS Number: RN6960000

CAS#	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
83905-01-5	Azithromycin	n.a.	n.a.	n.a.	n.a.

## Section 12. Ecological Information

Avoid release into the environment. 12.1 Toxicity:

Runoff from fire control or dilution water may cause pollution.

12.2 Persistence and No data available.

Degradability:

12.3 **Bioaccumulative** No data available.

Potential:

12.4 No data available. **Mobility in Soil:** 

Results of PBT and vPvB No data available. 12.5

assessment:

No data available. 12.6 Other adverse effects:

## Section 13. Disposal Considerations

Dispose in accordance with local, state, and federal regulations. 13.1 Waste Disposal Method:

# Section 14. Transport Information

#### LAND TRANSPORT (US DOT): 14.1

**DOT Proper Shipping Name:** Not dangerous goods.

**DOT Hazard Class: UN/NA Number:** 

#### 14.1 LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Not dangerous goods.

**UN Number: Hazard Class:** 

#### **AIR TRANSPORT (ICAO/IATA):** 14.3

Not dangerous goods. ICAO/IATA Shipping Name:

Additional Transport Transport in accordance with local, state, and federal regulations.

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# Section 15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists							
CAS#	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)			
83905-01-5	Azithromycin	No	No	No			
CAS#	Hazardous Components (Chemical Name)	Other US EPA o	Other US EPA or State Lists				
83905-01-5	Azithromycin	CAA HAP,ODC:	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No				

**Regulatory Information** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)

No.1272/2008. Statement:

#### Section 16. Other Information

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**Additional Information About** 

No data available.

This Product:

Company Policy or Disclaimer: DISCLAIMER: This information is believed to be accurate and represents the best information

> currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for

their particular purposes.