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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Identifier

Material Name: Azithromycin dihydrate film coated tablets

Trade Name: ZITHROMAX; ZITROCIN; ULTREON; ZITROMAX; TRULIMAX; ZITROTEK; AZADOSE;

AZITHROMYCINE; AZITHROMYCIN; AZITROCIN; AZITROMAX; ZETAMAX

Chemical Family: Mixture

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Intended Use: Pharmaceutical product used as antibiotic agent

Details of the Supplier of the Safety Data Sheet

Pfizer Inc
Pfizer Pharmaceuticals Group
235 East 42nd Street
New York, New York 10017

1-800-879-3477

Emergency telephone number:

CHEMTREC (24 hours): 1-800-424-9300
Contact E-Mail: pfizer-MSDS@pfizer.com

Pfizer Ltd

Ramsgate Road Sandwich, Kent CT13 9NJ

United Kingdom +00 44 (0)1304 616161

Emergency telephone number:

International CHEMTREC (24 hours): +1-703-527-3887

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS - Classification Not classified as hazardous

EU Classification:

EU Indication of danger: Not classified

Label Elements

Signal Word: Not required

Other Hazards

Australian Hazard Classification

(NOHSC):

No data available

Non-Hazardous Substance. Non-Dangerous Goods.

Note: This document has been prepared in accordance with standards for workplace safety, which

require the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warnings included may not apply in all cases.

Your needs may vary depending upon the potential for exposure in your workplace.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous

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3. COMPOSITION / INFORMATION ON INGREDIENTS					
Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Azithromycin dihydrate	117772-70-0	Not Listed	Not Listed	Not Listed	56
Sodium lauryl sulfate	151-21-3	205-788-1	Not Listed	Not Listed	*
Starch, pregelatinized	9005-25-8	232-679-6	Not Listed	Not Listed	*
Magnesium stearate	557-04-0	209-150-3	Not Listed	Not Listed	*

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Calcium phosphate dibasic, anhydrous	7757-93-9	231-826-1	Not Listed	Not Listed	*
Croscarmellose sodium	74811-65-7	Not Listed	Not Listed	Not Listed	*

Additional Information: * Proprietary

Ingredient(s) indicated as hazardous have been assessed under standards for workplace

safety.

In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has

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been withheld as a trade secret.

4. FIRST AID MEASURES

Description of First Aid Measures

Eve Contact: Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention

immediately.

Skin Contact: Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek

medical attention.

Ingestion: Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not

induce vomiting unless directed by medical personnel. Seek medical attention immediately.

Inhalation: Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms and Effects of For information on potential signs and symptoms of exposure, See Section 2 - Hazards

Identification and/or Section 11 - Toxicological Information. **Exposure:** None known

Medical Conditions

Aggravated by Exposure:

Indication of the Immediate Medical Attention and Special Treatment Needed

Notes to Physician: None

5. FIRE FIGHTING MEASURES

Extinguishing Media: Use carbon dioxide, dry chemical, or water spray.

Special Hazards Arising from the Substance or Mixture

Hazardous Combustion

Emits toxic fumes of carbon monoxide, carbon dioxide, and nitrogen oxides.

Products:

Not determined Fire / Explosion Hazards:

Advice for Fire-Fighters

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Wear approved positive pressure, self-contained breathing apparatus and full protective turn out gear. Use caution in approaching fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

Environmental Precautions

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Methods and Material for Containment and Cleaning Up

Measures for Cleaning / Collecting:

Contain the source of spill if it is safe to do so. Collect spilled material by a method that controls dust generation. A damp cloth or a filtered vacuum should be used to clean spills of

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dry solids. Clean spill area thoroughly.

Additional Consideration for

Large Spills:

Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Minimize dust generation and accumulation. If tablets or capsules are crushed and/or broken, avoid breathing dust and avoid contact with eyes, skin, and clothing. When handling, use appropriate personal protective equipment (see Section 8). Wash hands and any exposed skin after removal of PPE. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: Store as directed by product packaging.

Specific end use(s): Pharmaceutical drug product

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Refer to available public information for specific member state Occupational Exposure Limits.

Azithromycin dihydrate

Pfizer OEL TWA-8 Hr: 500µg/m³

Calcium phosphate dibasic, anhydrous

Latvia OEL - TWA 10 mg/m³

Sodium lauryl sulfate

Pfizer OEL TWA-8 Hr: 0.3 mg/m³

Starch, pregelatinized

 ACGIH Threshold Limit Value (TWA)
 10 mg/m³

 Australia TWA
 10 mg/m³

 Belgium OEL - TWA
 10 mg/m³

 Bulgaria OEL - TWA
 10.0 mg/m³

 Czech Republic OEL - TWA
 4.0 mg/m³

 Greece OEL - TWA
 10 mg/m³

5 mg/m³

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

 Ireland OEL - TWAs
 10 mg/m³

 4 mg/m³
 4 mg/m³

 OSHA - Final PELS - TWAs:
 15 mg/m³

 Portugal OEL - TWA
 10 mg/m³

 Slovakia OEL - TWA
 4 mg/m³

Spain OEL - TWA 10 mg/m³ Switzerland OEL -TWAs 3 mg/m³

Magnesium stearate

ACGIH Threshold Limit Value (TWA) 10 mg/m³
Lithuania OEL - TWA 5 mg/m³
Sweden OEL - TWAs 5 mg/m³

Analytical Method: Analytical method available for Azithromycin. Contact Pfizer Inc for further information.

Exposure Controls

Engineering Controls: Engineering controls should be used as the primary means to control exposures. General

room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne

contamination levels below the exposure limits listed above in this section.

Personal Protective Refer to applicable national standards and regulations in the selection and use of personal

Equipment: protective equipment (PPE).

Hands: Impervious gloves are recommended if skin contact with drug product is possible and for bulk

processing operations.

Eyes: Wear safety glasses or goggles if eye contact is possible.

Skin: Impervious protective clothing is recommended if skin contact with drug product is possible and

for bulk processing operations.

Respiratory protection: If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate

respirator with a protection factor sufficient to control exposures to below the OEL.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Film-coated tablets Color: Pink or White to off-white

Odor: No data available. Odor Threshold: No data available.

Molecular Formula: Mixture Molecular Weight: Mixture

Solvent Solubility:

Water Solubility:

PH:

Melting/Freezing Point (°C):

Boiling Point (°C):

No data available.

No data available.

No data available.

No data available.

Partition Coefficient: (Method, pH, Endpoint, Value)

Calcium phosphate dibasic, anhydrous

No data available Starch, pregelatinized No data available Magnesium stearate

No data available **Sodium lauryl sulfate** No data available

Azithromycin dihydrateMeasured 7 Log P 0.67

Croscarmellose sodium

No data available

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9. PHYSICAL AND CHEMICAL PROPERTIES

Decomposition Temperature (°C): No data available.

Evaporation Rate (Gram/s): No data available Vapor Pressure (kPa): No data available Vapor Density (q/ml): No data available **Relative Density:** No data available Viscosity: No data available

Flammablity:

Autoignition Temperature (Solid) (°C): No data available Flammability (Solids): No data available Flash Point (Liquid) (°C): No data available **Upper Explosive Limits (Liquid) (% by Vol.):** No data available Lower Explosive Limits (Liquid) (% by Vol.): No data available Polymerization: Will not occur

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical Stability: Stable under normal conditions of use.

Possibility of Hazardous Reactions

Oxidizing Properties: No data available

Conditions to Avoid: Fine particles (such as dust and mists) may fuel fires/explosions. As a precautionary measure, keep away from strong oxidizers **Incompatible Materials:**

Hazardous Decomposition No data available

Products:

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

General Information: The information included in this section describes the potential hazards of the individual

inaredients.

Short Term: Dust may cause irritation if tablets are crushed or broken. Individuals sensitive to this

chemical or other materials in its chemical class may develop allergic reactions.

Known Clinical Effects: May cause effects similar to those seen in clinical use including transient diarrhea, nausea and

abdominal pain.

Acute Toxicity: (Species, Route, End Point, Dose)

Magnesium stearate

Rat Oral LD50 > 2000 mg/kg Rat Inhalation LC50 $> 2000 \text{ mg/m}^3$

Sodium lauryl sulfate

Rat Oral LD50 1288 mg/kg

Azithromycin dihydrate

Mouse (F) Oral LD50 4000 mg/kg Mouse (M) Oral LD50 3000mg/kg Rat Oral LD50 > 2000mg/kg

Acute Toxicity Comments: A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable

at the highest dose used in the test.

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11. TOXICOLOGICAL INFORMATION

Irritation / Sensitization: (Study Type, Species, Severity)

Sodium lauryl sulfate

Eye Irritation Rabbit Moderate
Skin Irritation Rabbit Mild Moderate
Skin Sensitization - GPMT Guinea Pig Negative
Skin Sensitization - LLNA Mouse Negative

Azithromycin dihydrate

Antigenicity- Active anaphylaxis Guinea Pig Negative
Antigenicity- Passive cutaneous anaphylaxis Rabbit Negative
Antigenicity- Passive cutaneous anaphylaxis Mouse Negative

Repeated Dose Toxicity: (Duration, Species, Route, Dose, End Point, Target Organ)

Azithromycin dihydrate

6 Month(s) Rat Oral 10 mg/kg/day LOEL Liver 6 Month(s) Oral 10 mg/kg/day Dog LOEL Liver 1 Month(s) Rat Intravenous 5 mg/kg/day **NOEL** Liver 1 Month(s) Intravenous 5 mg/kg/day NOEL Liver Dog

Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))

Azithromycin dihydrate

Reproductive & Fertility Rat Oral 10 mg/kg/day NOEL Fertility Prenatal & Postnatal Development Oral 40 mg/kg/day **NOEL** Not Teratogenic Mouse Prenatal & Postnatal Development Rat Oral 40 mg/kg/day **NOEL** Not Teratogenic

Genetic Toxicity: (Study Type, Cell Type/Organism, Result)

Sodium lauryl sulfate

Bacterial Mutagenicity (Ames) Salmonella Negative

Azithromycin dihydrate

Bacterial Mutagenicity (Ames) Salmonella Negative
In Vivo Cytogenetics Mouse Lymphoma Negative
In Vitro Cytogenetics Mouse Negative
In Vitro Cytogenetics Human Lymphocytes Negative

<u>Carcinogen Status:</u> None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION

Environmental Overview: In the environment, the active ingredient in this formulation is expected to mainly reside in the

aquatic environment and slowly degrade.

Toxicity:

Aquatic Toxicity: (Species, Method, End Point, Duration, Result)

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Sodium lauryl sulfate

Oncorhynchus mykiss (Rainbow Trout) LC50 96 Hours 3.6 mg/L

Azithromycin dihydrate

Daphnia magna (Water Flea) OECD EC50 48 Hours 120 mg/L

Hyallela azteca (Freshwater Amphipod) OECD LC50 96 Hours > 120 mg/LOncorhynchus mykiss (Rainbow Trout) OECD LC50 96 Hours > 84 mg/L

OECD EC50 Green Algae 72 Hours 0.0037 mg/L

Microcystis aeruginosa (Blue-green Alga) OECD ErC50 96 Hours 0.0018 mg/L

Aquatic Toxicity Comments: A greater than (>) symbol indicates that acute ecotoxicity was not observed at the maximum

solubility. Since the substance is insoluble in aqueous solutions above this concentration, an

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acute ecotoxicity value (i.e. LC/EC50) is not achievable.

Bacterial Inhibition: (Inoculum, Method, End Point, Result)

Azithromycin dihydrate

Aspergillus niger (Fungus) OECD MIC > 1000 mg/LTrichoderma viride (Fungus) OECD MIC > 1000 mg/LClostridium perfingens (Bacterium) OECD MIC 2.0 mg/L Bacillus subtilis (Bacterium) MIC2.0 mg/L OECD

Azithromycin dihydrate

Eisenia foetida (Earthworm) TAD NOEC 28 Days 1000 mg/kg

Azithromycin dihydrate

Pimephales promelas (Fathead Minnow) OECD 32 Day(s) NOEC 4.6 mg/L Ceriodaphnia dubia (Daphnids) OPPTS 7 Day(s) NOEC 0.0044 mg/L Reproduction

No data available Persistence and Degradability:

Bio-accumulative Potential: No data available

Azithromycin dihydrate Measured 7 Log P

Mobility in Soil: No data available

13. DISPOSAL CONSIDERATIONS

Dispose of waste in accordance with all applicable laws and regulations. Member State **Waste Treatment Methods:**

specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental

releases. This may include destructive techniques for waste and wastewater.

14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

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15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Canada - WHMIS: Classifications

WHMIS hazard class:

None required

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Azithromycin dihydrate

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
EU EINECS/ELINCS List	Not Listed

Calcium phosphate dibasic, anhydrous

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	231-826-1

Sodium lauryl sulfate

Not Listed
Not Listed
Present
Present
Schedule 6

for Drugs and Poisons:

EU EINECS/ELINCS List 205-788-1

Croscarmellose sodium

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
EU EINECS/ELINCS List	Not Listed

Starch, pregelatinized

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CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present

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15. REGULATORY INFORMATION

REACH - Annex IV - Exemptions from the obligations of Register:

EU EINECS/ELINCS List

232-679-6

Present

Magnesium stearate

CERCLA/SARA 313 Emission reporting Not Listed **California Proposition 65** Not Listed Inventory - United States TSCA - Sect. 8(b) Present Australia (AICS): Present **EU EINECS/ELINCS List** 209-150-3

16. OTHER INFORMATION

Data Sources: Safety data sheets for individual ingredients. Pfizer proprietary drug development information.

Updated Section 1 - Identification of the Substance/Preparation and the Company/Undertaking. Reasons for Revision:

> Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on Ingredients. Updated Section 7 - Handling and Storage. Updated Section 11 - Toxicology

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Information. Updated Section 12 - Ecological Information.

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Product Stewardship Hazard Communication Pfizer Global Environment, Health, and Safety Operations Prepared by:

Pfizer Inc believes that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time.

End of Safety Data Sheet