

# EM POWDER MEDICATION

Chemwatch Material Safety Data Sheet  
Issue Date: 9-Jan-2006  
B293EC

CHEMWATCH 4658-75  
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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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### PRODUCT NAME

EM POWDER MEDICATION

### STATEMENT OF HAZARDOUS NATURE

**CONSIDERED A HAZARDOUS SUBSTANCE ACCORDING TO OSHA 29 CFR  
1910.1200.**

### SUPPLIER

Company: Aquarium Pharmaceuticals Incorporated  
Address:  
50 East Hamilton Street  
Chalfont  
PA, 18914  
USA  
Telephone: +1 215 822 8181  
Fax: +1 215 822 1906

### PRODUCT USE

Used according to manufacturers directions.

### SYNONYMS

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## Section 2 - COMPOSITION / INFORMATION ON INGREDIENTS

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NAME	CAS RN	%
sodium chloride	7647-14-5	>80
erythromycin phosphate	4501-00-2	1-10
silica amorphous, fumed, crystalline free	112945-52-5	1-5

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## Section 3 - HAZARDS IDENTIFICATION

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### CANADIAN WHMIS SYMBOLS



### EMERGENCY OVERVIEW

RISK

### POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

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Section 3 - HAZARDS IDENTIFICATION

## SWALLOWED

The material has NOT been classified as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality (death) rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, unintentional ingestion is not thought to be cause for concern.

## EYE

There is some evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure.

## SKIN

There is some evidence to suggest that the material may cause mild but significant inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterized by redness, swelling and blistering. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

## INHALED

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product.

## CHRONIC HEALTH EFFECTS

Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on X-ray. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. There is some evidence that inhaling this product is more likely to cause a sensitization reaction in some persons compared to the general population. There is limited evidence that, skin contact with this product is more likely to cause a sensitization reaction in some persons compared to the general population.

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## Section 4 - FIRST AID MEASURES

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### SWALLOWED

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Center or a doctor.

### EYE

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

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Section 4 - FIRST AID MEASURES

- If pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

## SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

## INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

## NOTES TO PHYSICIAN

Treat symptomatically.

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## Section 5 - FIRE FIGHTING MEASURES

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Flash Point (°F): Not Applicable  
Lower Explosive Limit (%): Not Applicable  
Upper Explosive Limit (%): Not Applicable  
Autoignition Temp (°F): Not Applicable

## EXTINGUISHING MEDIA

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

## FIRE FIGHTING

- Alert Emergency Responders and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water course.
- Use fire fighting procedures suitable for surrounding area.
- Do not approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

## GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS

- Non combustible.
  - Not considered to be a significant fire risk, however containers may burn.
- Decomposition may produce toxic fumes of, nitrogen oxides (NO<sub>x</sub>), metal oxides.  
May emit poisonous fumes.  
May emit corrosive fumes., hydrogen chloride.

## FIRE INCOMPATIBILITY

None known.

## PERSONAL PROTECTION

Glasses:  
Chemical goggles.  
Gloves:  
PVC chemical resistant type.  
Respirator:  
Particulate

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing dust and contact with skin and eyes.
- Wear protective clothing, gloves, safety glasses and dust respirator.
- Use dry clean up procedures and avoid generating dust.
- Sweep up, shovel up or vacuum up (consider explosion-proof machines designed to be grounded during storage and use).
- Place spilled material in clean, dry, sealable, labeled container.

### MAJOR SPILLS

Moderate hazard.

- CAUTION: Advise personnel in area.
- Alert Emergency Responders and tell them location and nature of hazard.
- Control personal contact by wearing protective clothing.
- Prevent, by any means available, spillage from entering drains or water courses.
- Recover product wherever possible.
- IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal.
- WET: Vacuum/shovel up and place in labelled containers for disposal.
- ALWAYS: Wash area down with large amounts of water and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

### EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

sodium chloride 500 mg/m<sup>3</sup>

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

sodium chloride 300 mg/m<sup>3</sup>

other than mild, transient adverse effects without perceiving a clearly defined odour is:

sodium chloride 40 mg/m<sup>3</sup>

The threshold concentration below which most people will experience no appreciable risk of health effects:

sodium chloride 15 mg/m<sup>3</sup>

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	>= 0.1%	Toxic (T)	>= 3.0%
R50	>= 0.25%	Corrosive (C)	>= 5.0%
R51	>= 2.5%		
else	>= 10%		

where percentage is percentage of ingredient found in the mixture

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## Section 7 - HANDLING AND STORAGE

### PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

### RECOMMENDED STORAGE METHODS

- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

### STORAGE REQUIREMENTS

Observe manufacturer's storing and handling recommendations.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m <sup>3</sup>	STEL ppm	STEL m5/m <sup>3</sup>	Peak ppm	Peak mg/m <sup>3</sup>
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	sodium chloride		3		6		
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	sodium chloride		10		20		

The following materials had no OELs on our record under the following CAS or Chemwatch (CW) numbers  
EM Powder Medication: No data available for CW:4658-75  
sodium chloride: No data available for CAS:7647-14-5  
erythromycin phosphate: No data available for CAS:4501-00-2  
silica amorphous, fumed, crystalline free: No data available for CAS:112945-52-5 CAS:67256-35-3

### EMERGENCY EXPOSURE LIMITS

Material	Original IDLH Value (ppm)	Original IDLH Value (mg/m <sup>3</sup> )	Revised IDLH Value (mg/m <sup>3</sup> )
silica amorphous, fumed, crystalline free	N.E.	N.E.	3,000

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Not available. Refer to individual constituents.

### EXPOSURE STANDARDS FOR MIXTURE

"Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration:

Composite Exposure Standard for Mixture (TWA) :2 mg/m<sup>3</sup>.

Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zone.

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

Component Breathing Zone ppm Breathing Zone mg/m<sup>3</sup> Mixture Conc (%)

Component	Breathing Zone (mg/m <sup>3</sup> )	Mixture Conc (%)
silica amorphous, fumed, crystalli	2.0000	5.0

### INGREDIENT DATA

#### SODIUM CHLORIDE:

Not available. Refer to individual constituents.

#### ERYTHROMYCIN PHOSPHATE:

Airborne particulate or vapor must be kept to levels as low as is practicably achievable given access to modern engineering controls and monitoring hardware.

Biologically active compounds may produce idiosyncratic effects which are entirely unpredictable on the basis of literature searches and prior clinical experience (both recent and past).

#### SILICA AMORPHOUS, FUMED, CRYSTALLINE FREE:

TLV TWA: 2 mg/m<sup>3</sup>

ES TWA: 2 mg/m<sup>3</sup>

## PERSONAL PROTECTION

### EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them. DO NOT wear contact lenses.

### HANDS/FEET

Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids.

- polychloroprene
- nitrile rubber
- butyl rubber
- fluorocautchouc
- polyvinyl chloride

Gloves should be examined for wear and/ or degradation constantly.

Wear chemical protective gloves, eg. PVC.

Wear safety footwear or safety gumboots, eg. Rubber.

NOTE: The material may produce skin sensitization in predisposed individuals.

Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.

### OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

- Skin cleansing cream.
- Eye wash unit.

### RESPIRATOR

Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
10 x PEL	P1 Air-line*	-	PAPR-P1
50 x PEL	Air-line**	P2	PAPR-P2
100 x PEL	-	P3 Air-line*	-
100+ x PEL	-	Air-line**	PAPR-P3

\* - Negative pressure demand \*\* - Continuous flow

Explanation of Respirator Codes:

Class 1 low to medium absorption capacity filters.

Class 2 medium absorption capacity filters.

Class 3 high absorption capacity filters.

PAPR Powered Air Purifying Respirator (positive pressure) cartridge.

Type A for use against certain organic gases and vapors.

Type AX for use against low boiling point organic compounds (less than 65°C).

Type B for use against certain inorganic gases and other acid gases and vapors.

Type E for use against sulfur dioxide and other acid gases and vapors.

Type K for use against ammonia and organic ammonia derivatives

Class P1 intended for use against mechanically generated particulates of sizes most commonly encountered in industry, e.g. asbestos, silica.

Class P2 intended for use against both mechanically and thermally generated particulates, e.g. metal fume.

Class P3 intended for use against all particulates containing highly toxic materials, e.g. beryllium.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.

Use appropriate NIOSH-certified respirator based on informed professional judgement. In conditions where no reasonable estimate of exposure can be made, assume the exposure is in a concentration IDLH and use NIOSH-certified full face pressure demand SCBA with a minimum service life of 30 minutes, or a combination full facepiece pressure demand SAR with auxiliary self-contained air supply. Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.

### ENGINEERING CONTROLS

- Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.
- If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered.

Such protection might consist of:

- (a): particle dust respirators, if necessary, combined with an absorption cartridge;
- (b): filter respirators with absorption cartridge or canister of the right type;
- (c): fresh-air hoods or masks

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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### PHYSICAL PROPERTIES

Mixes with water.

Molecular Weight: Not Applicable  
Melting Range (°C): Not Applicable  
Solubility in water (g/L): Miscible  
pH (1% solution): Not Applicable  
Volatile Component (%vol): Not Applicable  
Relative Vapor Density (air=1): Not Applicable  
Lower Explosive Limit (%): Not Applicable  
Autoignition Temp (°C): Not Applicable  
State: Divided Solid

Boiling Range (°C): Not Applicable  
Specific Gravity (water =1): 1.01  
pH (as supplied): Not Applicable  
Vapor Pressure (kPa): Not Applicable  
Evaporation Rate: Not Applicable  
Flash Point (°C): Not Applicable  
Upper Explosive Limit (%): Not Applicable  
Decomposition Temp (°C): Not Available  
Viscosity: Not Applicable

### APPEARANCE

White powder with no odour; soluble in water.

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## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

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### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerization will not occur.

### STORAGE INCOMPATIBILITY

None known.

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## Section 11 - TOXICOLOGICAL INFORMATION

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### EM Powder Medication

Not available. Refer to individual constituents.  
unless otherwise specified data extracted from RTECS - Register of Toxic Effects  
of Chemical Substances

#### SODIUM CHLORIDE:

##### TOXICITY

Oral (rat) LD50: 3000 mg/kg  
Oral (human) TDL0: 12357 mg/kg/23d  
Oral Lowest Toxic Dose (Human): 8.2 mg/kg Eye  
(rabbit): 100 mg/24h - Moderate

##### IRRITATION

Skin (rabbit): 500 mg/24h - Mild  
Eye (rabbit): 10 mg - Moderate

#### ERYTHROMYCIN PHOSPHATE:

No significant acute toxicological data identified in literature search.

#### SILICA AMORPHOUS, FUMED, CRYSTALLINE FREE:

##### TOXICITY

Oral (rat) LD50: 3160 mg/kg  
Dermal (rabbit) LD50: >5000 mg/kg \*

##### IRRITATION

No data  
\* [Cabot]

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## Section 12 - ECOLOGICAL INFORMATION

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DO NOT discharge into sewer or waterways.  
Refer to data for ingredients, which follows:

SODIUM CHLORIDE:  
TLm 96 > 1000 ppm

ERYTHROMYCIN PHOSPHATE:  
DO NOT discharge into sewer or waterways.

SILICA AMORPHOUS, FUMED, CRYSTALLINE FREE:  
Zebra fish LC50(96hr): 10000 mg/L.  
Daphnia magna LC50(24hr): 10000 mg/L.  
No adverse effects on water purification plant if removed mechanically.

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## Section 13 - DISPOSAL CONSIDERATIONS

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### Disposal Instructions

All waste must be handled in accordance with local, state and federal regulations.

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult Waste Management Authority for disposal.
- Bury residue in an authorized landfill.
- Recycle containers where possible, or dispose of in an authorized landfill.

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## Section 14 - TRANSPORTATION INFORMATION

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NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS:UN,IATA,IMDG

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## Section 15 - REGULATORY INFORMATION

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### RISK

None under normal operating conditions.

### REGULATIONS

sodium chloride (CAS: 7647-14-5) is found on the following regulatory lists;

No regulations applicable

silica amorphous, fumed, crystalline free (CAS: 112945-52-5) is found on the following regulatory lists;

No data available for erythromycin phosphate as CAS: 4501-00-2.

No data available for silica amorphous, fumed, crystalline free as CAS:  
67256-35-3.

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## Section 16 - OTHER INFORMATION

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### LIMITED EVIDENCE

Cumulative effects may result following exposure\*.

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Section 16 - OTHER INFORMATION

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May produce discomfort of the eyes and skin\*.

Possible respiratory and skin sensitiser\*.

\* (limited evidence).

## INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
silica amorphous, fumed, crystalline free	112945-52-5, 67256-35-3

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