

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Name: Heparin calcium
Synonyms: ERYTHROMYCIN 2'-(ETHYL SUCCINATE)
Formula: C43H75NO16
Supplier: Watson International Ltd
Telephone No: 86-512-81867280
Fax No: 86-512-81867270

2. COMPOSITION/INFORMATION ON INGREDIENTS

No.	Name
1.	Heparin calcium

No.	CAS No.	R Phrases	Concentration	Classification
1.	37270-89-6	R20/21/22/36/38/43/		Ik
2.		48/65		

Legend: Tx = Very Toxic, C = Corrosive, Xn = Harmful, Xi = Irritant, Ik = No Classification Required, E = Explosive, O = Oxidizing, Fx = Extremely Flammable, F = Very Flammable, Fo = Flammable, N = Dang. To the Environment, M = Genotoxic, A = Sensitizing, K = Carcinogenic, R = Causes birth defects, H = skin absorption

3. HAZARDS IDENTIFICATION

Classification/Labeling:

Warning: May be harmful if swallowed and enter airways
May cause damage to the following organs: blood
May cause irritation to skin, eyes and respiratory tract

Information concerning particular hazards for human and environment:

Risk phrases:

R20/21/22: Harmful by inhalation, in contact with the skin and if swallowed
R36/38: Irritating to eyes and skin
R43: May cause sensitization by skin contact
R48: Danger of serious damage to health by prolonged exposure
R65: Harmful: may cause lung damaged if swallowed

Safety phrases:

S23: Do not breathe dust or fumes
S24/25: Avoid contact with skin and eyes.

4. FIRST-AID MEASURES

Description of first aid measures

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

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Skin Contact:	Wash off with soap and plenty of water.
Eye Contact:	Flush eyes with water as a precaution.
Swallow:	Never give anything by mouth to an unconscious person. Rinse mouth with water.
Most important symptoms and effects, both acute and delayed:	Heparin and its salts act as anticoagulants subcutaneously or intravenously.
Indication of any immediate medical attention and special treatment needed:	No data available

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture:	Carbon oxides, nitrogen oxides (NO _x), Sulphur oxides
Advice for firefighters:	Wear self contained breathing apparatus for fire fighting if necessary.
Further information:	No data available

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust
Environmental Precautions:	Do not let product enter drains.
Methods and materials for containment and cleaning up:	Sweep up and shovel. Keep in suitable, closed containers for disposal.
Reference to other sections:	For disposal see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling:	Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.
Conditions for safe storage, including any incompatibilities:	Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Specific end uses:	No data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:	Components with workplace control parameters
Appropriate engineering controls:	General industrial hygiene practice.
Respiratory protection:	Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Body protection:	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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Eye protection:	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Solid(Powder)
Color:	White or off white
Odour:	Odorless.
pH:	No data available.
Melting point/ melting range:	>250°C, decomposes with fumes.
Boiling point/ boiling range	No data available.
Flash Point:	>300°C
Ignition temperature:	No data available.
Evaporation rate:	No data available.
Danger of explosion:	No data available.
Explosion limits:	No data available.
Vapour pressure at 20°C:	No data available.
Density at 20 ° C:	No data available.
Solubility in / Miscibility with water at 20 °C:	No data available.
Viscosity:	No data available.
Other safety information:	No data available.

10. STABILITY AND REACTIVITY

Chemical stability:	No data available.
Reactivity:	No data available.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	No data available.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	LD50 Oral – mouse/rats - > 5.000 mg/kg.
Skin corrosion/irritation:	No data available
Serious eye damage/eye Irritation:	No data available
Respiratory or skin sensitization:	No data available. May cause allergic respiratory and skin reaction
Germ cell mutagenicity:	No data available
Carcinogenicity:	IARC: No component of this product present at levels greater than or equal to

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0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity:	No data available
Specific target organ toxicity - single exposure:	No data available
Specific target organ toxicity - repeated exposure:	No data available
Aspiration hazard:	No data available
Potential health effects:	Inhalation: May be harmful if inhaled. May cause respiratory tract irritation. Ingestion: May be harmful if swallowed. Skin: May be harmful if absorbed through skin. May cause skin irritation. Eyes: May cause eye irritation.
Signs and Symptoms of Exposure:	Heparin and its salts act as anticoagulants subcutaneously or intravenously.
Additional Information:	RTECS: MI0800000

12. ECOLOGICAL INFORMATION

Toxicity	No data available.
Persistence and degradability:	No data available.
Bioaccumulative potential:	No data available.
Mobility in soil:	No data available.
Results of PBT and vPvB assessment:	No data available.
Other adverse effects:	No data available.

13. DISPOSAL CONSIDERATIONS

Product and Waste treatment methods:	Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging:	Dispose of as unused product.

14. TRANSPORT INFORMATION

UN number:	ADR/RID: - IMDG: - IATA: -
UN proper shipping name:	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods
Transport hazard class(es):	ADR/RID: - IMDG: - IATA: -
Packaging group:	ADR/RID: - IMDG: - IATA: -
Environmental hazards:	ADR/RID: - IMDG: - IATA: -
Special precautions for user:	No data available.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture:

No data available.

Chemical Safety Assessment:

No data available.

16. OTHER INFORMATION

DISCLAIMER

The information in the MSDS relates to this specific material. If the product is used as a component in any other product, this MSDS may not be valid. The information contained was obtained from sources which we believe are reliable. The information is provided without any warranty, expressed or implied, regarding its correctness.

BY: Watson International Ltd

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