

Epinephrine Injection, USP

ISSUED 05/02/00

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION  
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MATERIAL NAME: Epinephrine Injection, USP  
List Number: 3407, 4320, 4901, 4921, 7241, 7899, EP01,  
EP01B

MANUFACTURER: Hospital Products Division  
Abbott Laboratories  
Abbott Park, Illinois 60064

EMERGENCY TELEPHONE NUMBER: 1-847-937-7970  
CHEMTREC TELEPHONE NUMBER: 1-800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS  
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INGREDIENT NAME: Epinephrine \*  
CAS/RTECS NUMBERS: 51-43-3/DO2625000  
OSHA-PEL 8HR TWA: N/L  
STEL: N/L  
CEILING: N/L  
ACGIH-TLV 8HR TWA: N/L  
STEL: N/L  
CEILING: N/L  
OTHER 8HR TWA: 1 mcg/m3, skin, eye (Abbott Laboratories)  
LIMITS STEL: 20 mcg/m3 \*\*  
CEILING: N/A

\* Hazardous per OSHA criteria

\*\* Up to four excursions allowed, no closer than 1 hour apart, so long as the 8-hour TWA is maintained.

3. HAZARDS INFORMATION  
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EMERGENCY OVERVIEW: In clinical use, this material stimulates the sympathetic nervous system and the heart. The active ingredient is a potent drug, is considered highly toxic by ingestion and skin contact, and can exert effects on the nervous system, eyes, cardiovascular system and respiratory system.

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3. HAZARDS INFORMATION, continued  
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ROUTE(S) OF ENTRY:           Skin: Unlikely  
                                  Inhalation: Unlikely  
                                  Ingestion: Unlikely

INGESTION RATING: Possibly highly toxic

SKIN ABSORPTION RATING: Possibly highly toxic

INHALATION RATING: N/D

CORROSIVENESS RATING: N/D

SKIN CONTACT RATING: N/D

SKIN SENSITIZATION RATING: N/D

EYE CONTACT RATING: N/D

TARGET ORGANS: Heart, eyes, nervous system, cardiovascular system,  
                  respiratory system

CARCINOGENICITY RATING: NTP: N/L   IARC: N/L   OSHA: N/L

ACGIH: N/L

None

SIGNS AND SYMPTOMS: N/D. In clinical use, epinephrine can produce many side effects including nervousness, sweating, fearfulness, anxiety, palpitations, tenseness, restlessness, headache, tremor, dizziness, lightheadness, tachycardia, nausea, vomiting, respiratory difficulty, fever, chills, dilated pupils, blurred vision and cyanosis. Can also produce electrocardiogram change, disturbed cardiac rhythm, hypertension, metabolic acidosis and cardiac injury.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: N/D. Clinical data suggest old age, cardiovascular diseases, hypertension, diabetes, hyperthyroid or respiratory disease, labor and ocular disease/glaucoma. Hypersensitivity to sympathomimetic amines.

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SKIN SENSITIZATION RATING: N/D

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## 4. FIRST AID MEASURES

EYES: Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. No known antidote. Provide symptomatic/supportive care, monitoring cardiovascular function, as necessary.

SKIN: Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. No known antidote. Provide symptomatic/supportive care, monitoring cardiovascular function, as necessary.

INGESTION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. No known antidote. Provide symptomatic/supportive care, monitoring cardiovascular function, as necessary.

INHALATION: Remove from source of exposure. If signs of toxicity occur, seek medical attention. No known antidote. Provide symptomatic/supportive care, monitoring cardiovascular function, as necessary.

## 5. FIRE FIGHTING PROCEDURES

FLASH POINT: Non-flammable

FLASH POINT METHOD: N/A

LOWER EXPLOSIVE LIMIT(%): N/D

UPPER EXPLOSIVE LIMIT(%): N/D

AUTOIGNITION TEMPERATURE: N/D

FIRE & EXPLOSION HAZARDS: N/D.

EXTINGUISHING MEDIA: Use media appropriate for primary cause of fire.

FIRE FIGHTING INSTRUCTIONS: Wear protective clothing and self-contained breathing apparatus.

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6. ACCIDENTAL RELEASE MEASURES  
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SPILL OR RELEASE PROCEDURES: Absorb with suitable material and containerize prior to disposal in accordance with Section 13. Use personal protective equipment recommended in Section 8.

7. HANDLING AND STORAGE  
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HANDLING: No special handling required.

STORAGE: Store at controlled room temperature of 15-30 degrees C (59-86 degrees F).

SPECIAL PRECAUTIONS: Protect from light.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION  
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ENGINEERING CONTROLS: No special provisions required under normal use conditions.

RESPIRATORY PROTECTION: Respiratory protection is not needed during normal product use.

SKIN PROTECTION: If skin contact is likely, impervious gloves are recommended.

EYE PROTECTION: Eye protection is not required during typical product use conditions. Eye protection is recommended if contact is likely.

OTHER PROTECTION: N/D

9. PHYSICAL AND CHEMICAL PROPERTIES  
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APPEARANCE/PHYSICAL STATE: Clear Liquid

ODOR: N/A

BOILING POINT: Water (approx.)

MELTING/FREEZING POINT: Water (approx.)

VAPOR PRESSURE (mm Hg): N/D

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## 9. PHYSICAL AND CHEMICAL PROPERTIES, continued

VAPOR DENSITY (Air=1): N/A  
EVAPORATION RATE: N/A  
BULK DENSITY: N/D  
SPECIFIC GRAVITY: Water (approx.)  
SOLUBILITY: Aqueous solution.  
pH: 2.5 - 5.0  
VISCOSITY: Water (approx.)

## 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: N/D. Protect from light.

INCOMPATIBILITIES: N/D.

HAZARDOUS DECOMPOSITION PRODUCTS: When heated to decomposition it emits toxic fumes of NOx.

HAZARDOUS POLYMERIZATION: N/D

## 11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY: N/D. LD50 = 24-50 mg/kg in mice and rats for epinephrine (Highly Toxic).

DERMAL TOXICITY: N/D. LD50 = 62 mg/kg in rats for epinephrine (Highly Toxic).

INHALATION TOXICITY: N/D. Clinical effects produced by oral/inhalation administration of 0.16 mg or more.

CORROSIVENESS: N/D

DERMAL IRRITATION: N/D

OCULAR IRRITATION: N/D

DERMAL SENSITIZATION: N/D

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11. TOXICOLOGICAL INFORMATION, continued  
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SPECIAL TARGET ORGAN EFFECTS: N/D. Naturally occurring sympathomimetic amine that stimulates the sympathetic nervous system. Can produce irritation, pigment deposition, a reduction of intraocular pressure and a reduction in visual acuity to the eyes. Intranasal use can lead to rebound congestion while injection can lead to tissue necrosis due to local constriction of blood vessels. Use of epinephrine by pregnant women may delay labor by retarding uterine contractions and cause fetal anoxia. Has produced teratogenic effects in animals at 25 times the clinical dose and some mutagenic effect in bioassays. Nasal changes were produced by epinephrine hydrochloride in long-term inhalation studies in rats and mice at concentrations of 1.5 mg/m<sup>3</sup> or more.

CARCINOGENICITY INFORMATION: N/D. Epinephrine hydrochloride produced nasal inflammation, degeneration of epithelium and hyperplasia in carcinogenicity bioassays in mice or rats at airborne concentrations of 1.5 mg/m<sup>3</sup> or more.

12. ECOLOGICAL INFORMATION  
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ECOLOGICAL INFORMATION: N/D

13. DISPOSAL CONSIDERATIONS  
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WASTE DISPOSAL METHODS: Dispose in accordance with local, state, and federal regulations.

14. TRANSPORTATION INFORMATION  
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DOT STATUS: Not Regulated  
PROPER SHIPPING NAME: N/A  
HAZARD CLASS: N/A  
UN NUMBER: N/A  
PACKING GROUP: N/A  
REPORTABLE QUANTITY: 1000/454

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14. TRANSPORTATION INFORMATION, continued  
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IATA/ICAO STATUS: Not Regulated

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

UN NUMBER: N/A

PACKING GROUP: N/A

REPORTABLE QUANTITY: N/A

IMO STATUS: Not Regulated

PROPER SHIPPING NAME: N/A

HAZARD CLASS: N/A

UN NUMBER: N/A

PACKING GROUP: N/A

REPORTABLE QUANTITY: N/A

FLASH POINT: Non-flammable

15. REGULATORY INFORMATION  
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TSCA STATUS: N/A

CERCLA STATUS: As of the review date of this document, epinephrine is subject to the reportable quantity notifications requirements under CERCLA (40 CFR Part 302) where persons in charge of facilities are required to notify the National Response Center (NRC) immediately

SARA STATUS: N/L

RCRA STATUS: As of review date of this document this chemical is a RCRA hazardous waste (per 40 CFR Part 261.3, and identified by EPA Hazardous Waste Number P042).

PROP 65 (CA): N/L

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16. OTHER INFORMATION  
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LEGEND: N/A = Not Applicable  
N/D = Not Determined  
N/L = Not Listed  
L = Listed  
C = Ceiling  
S = Short-term  
(R) = Registered Trademark of Abbott Laboratories  
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