1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMMON NAME: Heparin Sodium Injection, USP
USE: Prescription drug used in anticoagulant therapy in the prophylaxis and treatment of arterial and venous thrombosis, pulmonary embolism, disseminated intravascular coagulation, and to prevent clotting in arterial and cardiac surgery and as an anticoagulant in blood transfusions, dialysis procedures and blood samples.
MANUFACTURER/SUPPLIER:
THE UPJOHN COMPANY
7171 PORTAGE RD.
KALAMAZOO, MI 49001-0199
TELEPHONE NUMBERS:
(616) 323-5122 (24 Hours)
(616) 323-7555 (8:00 AM – 4:30 PM)

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT 1
COMMON NAME: Heparin Sodium.
% BY WEIGHT: 1,000 to 10,000 (units/mL dependent on concentration)
CAS NUMBER: 9041-08-1
EXPOSURE LIMIT(S): Not established.

INGREDIENT 2
COMMON NAME: Water.
% BY WEIGHT: <98%
CAS NUMBER: 7732-18-5
EXPOSURE LIMIT(S): Not established.

INGREDIENT 3
COMMON NAME: Non-hazardous Ingredient(s).
% BY WEIGHT: <2%
EXPOSURE LIMIT(S): Not established.

EXPOSURE LIMIT(S) FOR THE MATERIAL: Not established.

3. HAZARDS IDENTIFICATION

PRIMARY ROUTE(S) OF EXPOSURE: Skin contact, eye contact, ingestion and inhalation.
EFFECTS OF OVEREXPOSURE: Skin irritation and sensitization to heparin sodium is possible. People who inhaled about 12 to 18 mg/kg of heparin sodium developed impaired blood coagulation, but no overt signs of bleeding, toxicity or changes in chest x-rays were observed. Other adverse reactions seen with parenteral exposure to heparin sodium included hemorrhage, irritation at injection site and hypersensitivity. Generalized signs of

3. HAZARDS IDENTIFICATION, Con't

hypersensitivity included chills, fever, urticaria, and more rarely, asthma, rhinitis, lacrimation, headache, nausea, vomiting and anaphylactoid reactions.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Exposure to heparin sodium is contraindicated in people with a history of hypersensitivity to heparin, liver disease with impaired hemostasis, severe thrombocytopenia, severe hypertension, ulcerative lesions (gastrointestinal), hemophilia, some vascular purpuras or people on concurrent oral anticoagulant therapy.

4. FIRST AID MEASURES

EYES: Flush with water for 15 minutes. Hold eyelids open to assure complete contact with water.
SKIN: Wash with soap and water. Remove contaminated clothing.
INHALATION: Remove from exposure.
INGESTION: Contact a physician or poison control center.

5. FIRE FIGHTING MEASURES

FLASH POINT: Nonflammable.
LOWER EXPLOSION LIMIT (LEL): Not applicable.
UPPER EXPLOSION LIMIT (UEL): Not applicable.
EXTINGUISHING MEDIA: Water, carbon dioxide, or dry chemical.
FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and full-body protective equipment.
UNUSUAL FIRE OR EXPLOSION HAZARDS: None.
HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide. Carbon dioxide. Nitrogen oxides. Sulfur oxides.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Provide ventilation and respiratory, skin and eye protection to prevent overexposure. Keep product out of drains; prevent entry to surface water, groundwater and soil. Small spills should be absorbed with paper towels or appropriate media. Large spills can be vacuumed or scooped and placed in a suitable container.

7. HANDLING AND STORAGE

PRECAUTIONS FOR HANDLING AND STORING: Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Launder contaminated clothes before reuse. Store in a cool, dry place and protect from light. Keep out of the reach of children.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

RESPIRATORY PROTECTION: Not required.
VENTILATION: Local exhaust.
PROTECTIVE GLOVES: Rubber.
EYE PROTECTION: Safety glasses with side shields.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: Liquid in 1-, 4-, 5-, 10- or 30-mL vials.
MOLECULAR WEIGHT: Mixture.
SOLUBILITY IN WATER: Freely soluble.

10. STABILITY AND REACTIVITY

STABILITY: Stable.
PHYSICAL CONDITIONS TO AVOID: None.
INCOMPATIBILITY WITH OTHER MATERIALS: None.
HAZARDOUS DECOMPOSITION PRODUCTS: None.
HAZARDOUS POLYMERIZATION: Does not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE STUDIES:
- **INTRAVENOUS LD50 (DOG):** 1 g/kg (heparin sodium).
- **INTRAVENOUS LD50 (RAT):** 354 mg/kg (heparin sodium).
- **INTRAVENOUS LD50 (MOUSE):** 2,800 mg/kg (heparin sodium).
- **ORAL LD50 (MOUSE):** >5 g/kg (heparin sodium).
- **INTRAPERITONEAL LD50 (MOUSE):** >2,500 mg/kg (heparin sodium).
- **SUBCUTANEOUS LD50 (MOUSE):** >2,500 mg/kg (heparin sodium).

OTHER STUDIES:
- **CARCINOGENICITY:** Ingredient(s) are not listed as carcinogenic by IARC, NTP or OSHA.

12. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of by incineration in accordance with applicable international, national, state, and/or local waste disposal regulations.

13. SHIPPING REGULATIONS

Not regulated for transportation by the United States Department of Transportation (DOT), International Maritime Organization (IMO), or International Air Transport Association (IATA). May be subject to state and/or local transportation requirements.

14. OTHER INFORMATION

REVIEWED BY: Health and Safety Regulatory Affairs.
DISCLAIMER: The MSDS information is believed to be correct but should only be used as a guide. The Upjohn Company disclaims any express or implied warranty as to the accuracy of the MSDS information and shall not be held liable for any direct, incidental or consequential damages resulting from reliance on the information.

15. LABELING

This drug is subject to FDA labeling requirements; therefore, it is exempt from the labeling requirements of the OSHA Hazard Communication Standard.

NDC 0009-0268-01	NDC 0009-0317-01
NDC 0009-0268-07	NDC 0009-0317-08
NDC 0009-0268-02	NDC 0009-0317-02
NDC 0009-0291-01	NDC 0009-0317-09