

## SAFETY DATA SHEET

**Product Name: Diazepam Injection, USP**

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Manufacturer Name And Address</b>	Hospira, Inc. 275 North Field Drive Lake Forest, Illinois 60045 USA
<b>Emergency Telephone</b>	CHEMTREC: North America: 800-424-9300; International 1-703-527-3887; Australia - 61-290372994; UK - 44-870-8200418
<b>Hospira, Inc.</b>	224 212-2000
<b>Product Name</b>	Diazepam Injection, USP
<b>Synonyms</b>	7-Chloro-1,3-dihydro-1-methyl-5-phenyl-2H-1,4-benzodiazepin-2-one

### 2. HAZARD(S) IDENTIFICATION

**Emergency Overview** Diazepam Injection, USP, is a solution containing diazepam, a benzodiazepine used to relieve anxiety and provide sedation. Diazepam is a Schedule IV controlled substance. In the workplace, this product should be considered a flammable liquid, potentially irritating to the eyes and respiratory tract, a potential occupational reproductive hazard, and a potent drug. Based on clinical use, possible target organs include the central nervous system, gastrointestinal system, genitourinary system, liver and cardiovascular system.

#### U.S. OSHA GHS Classification

Physical Hazards	Hazard Class	Hazard Category
	Flammable Liquid	3

Health Hazards	Hazard Class	Hazard Category
	Eye Damage/Irritation	2A
	Toxic to Reproduction	2
	STOT - RE	2

#### Label Element(s)

**Pictogram**



**Signal Word**

Warning

**Hazard Statement(s)**

Flammable liquid and vapor  
Causes serious eye irritation  
Suspected of damaging fertility and the unborn child  
May cause damage to organs through prolonged or repeated exposure

**2. HAZARD(S) IDENTIFICATION: continued**

**Precautionary Statement(s)**

**Prevention**

Keep away from heat/sparks/open flames/hot surfaces.– No smoking  
 Keep container tightly closed  
 Ground/Bond container and receiving equipment  
 Use explosion-proof equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge  
 Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Do not breathe vapor or spray  
 Wash hands thoroughly after handling

**Response**

Get medical attention if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

IF ON SKIN (OR HAIR): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IN CASE OF FIRE: For small fires, use water fog or fire extinguishing media suitable for Class B fires (e.g. dry chemical, carbon dioxide or foam). For large fires, apply water from as far away as possible; use very large quantities of water applied as a mist or spray.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Active Ingredient Name</b>	Diazepam	Benzyl Alcohol	Propylene Glycol	Ethyl Alcohol
<b>Chemical Formula</b>	C <sub>16</sub> H <sub>13</sub> ClN <sub>2</sub> O	C <sub>7</sub> H <sub>8</sub> O	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	C <sub>2</sub> H <sub>6</sub> O

<b>Component</b>	<b>Approximate Percent by Weight</b>	<b>CAS Number</b>	<b>RTECS Number</b>
Diazepam	0.5	439-14-5	DF1575000
Benzyl Alcohol	1.5	100-51-6	DN3150000
Propylene Glycol	40	57-55-6	TY2000000
Ethyl Alcohol	10	64-17-5	KQ6300000

Non-hazardous ingredients include Water for Injection (48%, w/w). Five percent sodium benzoate and/or benzoic acid added as buffers.

**4. FIRST AID MEASURES**

**Eye Contact**

Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

**Skin Contact**

Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

**Inhalation**

Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

#### **4. FIRST AID MEASURES: continued**

<b>Ingestion</b>	Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary. Manifestations of diazepam overdosage include somnolence, confusion, coma and diminished reflexes. Respiration, pulse and blood pressure should be monitored, as in all cases of drug overdosage, although, in general, these effects have been minimal following overdosage. General supportive measures should be employed. Intravenous fluids should be administered and an adequate airway maintained. Hypotension may be managed by the use of Levophed® (levarterenol) or Aramine® (metaraminol). Dialysis is of limited value. Flumazenil, a specific benzodiazepine-receptor antagonist, is indicated for the complete or partial reversal of the sedative effects of benzodiazepines and may be used in situations when an overdose with a benzodiazepine is known or suspected. Prior to the administration of flumazenil, necessary measures should be instituted to secure airway, ventilation and intravenous access. Flumazenil is intended as an adjunct to, not as a substitute for, proper management of benzodiazepine overdose. Patients treated with flumazenil should be monitored for re sedation, respiratory depression and other residual benzodiazepine effects for an appropriate period after treatment. The prescriber should be aware of a risk of seizure in association with flumazenil treatment, particularly in long-term benzodiazepine users and in cyclic antidepressant overdose.
------------------	--

#### **5. FIRE FIGHTING MEASURES**

<b>Flammability</b>	Flash Point: 50°C (122°F).
<b>Fire &amp; Explosion Hazard</b>	GHS Flammable liquid – Category 3. Keep away from flames, sparks, or other sources of ignition. When heated, product may produce combustible vapors due to the alcohol content.
<b>Extinguishing Media</b>	As with any fire, use extinguishing media appropriate for primary cause of fire such as carbon dioxide, dry chemical extinguishing powder or foam.
<b>Special Fire Fighting Procedures</b>	No special provisions required beyond normal firefighting equipment such as flame and chemical resistant clothing and self contained breathing apparatus.

#### **6. ACCIDENTAL RELEASE MEASURES**

<b>Spill Cleanup and Disposal</b>	Isolate area around spill. Remove potential sources of ignition in the spill area. Put on suitable protective clothing and equipment as specified by site spill control procedures. Absorb the liquid with suitable material and clean affected area with soap and water. Dispose of spill materials according to the applicable federal, state, or local regulations.
-----------------------------------	--

#### **7. HANDLING AND STORAGE**

<b>Handling</b>	No special handling required for hazard control under conditions of normal product use. Keep away from flames or other sources of ignition. Diazepam is a Schedule IV controlled substance. Additional training and procedures may be required when handling this material.
<b>Storage</b>	No special storage required for hazard control. For product protection, follow storage recommendations noted on the product case label, the primary container label, or the product insert.
<b>Special Precautions</b>	No special precautions required for hazard control.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

Component	Exposure Limits			
	OSHA-PEL	ACGIH-TLV	AIHA WEEL	Hospira EEL
Diazepam	8 hr TWA: Not Established	8 hr TWA: Not Established	8-hr TWA: Not Established	8 hr TWA: Not Established
Benzyl Alcohol	8 hr TWA: Not Established	8 hr TWA: Not Established	8-hr TWA: 10 ppm	8 hr TWA: Not Established
Propylene Glycol	8 hr TWA: Not Established	8 hr TWA: Not Established	8-hr TWA: 10 mg/m <sup>3</sup>	8 hr TWA: Not Established
Ethyl Alcohol	8 hr TWA: 1000 ppm; 1900 mg/m <sup>3</sup>	8 hr TWA: 1000 ppm	8-hr TWA: Not Established	8 hr TWA: Not Established

Notes: OSHA PEL: US Occupational Safety and Health Administration – Permissible Exposure Limit  
 ACGIH TLV: American Conference of Governmental Industrial Hygienists – Threshold Limit Value.  
 AIHA WEEL: American Industrial Hygiene Association - Workplace Environmental Exposure Level  
 EEL: Employee Exposure Limit.  
 TWA: 8 hour Time Weighted Average.

**Respiratory Protection**

Respiratory protection is normally not needed during intended product use. However, if the generation of aerosols or vapors is likely, and engineering controls are not considered adequate to control potential airborne exposures, the use of an approved air-purifying respirator with a HEPA cartridge (N95 or equivalent) with an organic vapor cartridge is recommended under conditions where airborne aerosol or vapor concentrations are not expected to be excessive. For uncontrolled release events, or if exposure levels are not known, provide respirators that offer a high protection factor such as a powered air purifying respirator or supplied air. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions require respirator use. Personnel who wear respirators should be fit tested and approved for respirator use as required.

**Skin Protection**

If skin contact with the product formulation is likely, the use of latex or nitrile gloves is recommended.

**Eye Protection**

Eye protection is normally not required during intended product use. However, if eye contact is likely to occur, the use of chemical safety goggles (as a minimum) is recommended.

**Engineering Controls**

Engineering controls are normally not needed during the anticipated use of this product.

## 9. PHYSICAL/CHEMICAL PROPERTIES

<b>Appearance/Physical State</b>	Solution may appear clear, colorless to slightly yellow
<b>Odor</b>	NA
<b>Odor Threshold</b>	NA
<b>pH</b>	6.2 – 6.9
<b>Melting point/Freezing Point</b>	NA
<b>Initial Boiling Point/Boiling Point Range</b>	98°C
<b>Flash Point</b>	50°C (122°F)
<b>Evaporation Rate</b>	NA
<b>Flammability (solid, gas)</b>	NA
<b>Upper/Lower Flammability or Explosive Limits</b>	LEL: 3.3% based on ethanol UEL: 19% based on ethanol
<b>Vapor Pressure</b>	43 mm Hg at 23°C for ethyl alcohol; 0.07 mm Hg at 20°C for propylene glycol; 1.0 mm Hg at 58°C for benzyl alcohol
<b>Vapor Density (Air =1)</b>	1.59 for ethyl alcohol; 2.6 for propylene glycol; 3.72 for benzyl alcohol
<b>Relative Density</b>	1.0349
<b>Solubility</b>	Water; slightly soluble in alcohol
<b>Partition Coefficient: n-octanol/water</b>	NA
<b>Auto-ignition Temperature</b>	NA
<b>Decomposition Temperature</b>	NA
<b>Viscosity</b>	NA

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	Not determined.
<b>Chemical Stability</b>	Stable under standard use and storage conditions.
<b>Hazardous Reactions</b>	Not determined
<b>Conditions to Avoid</b>	Not determined
<b>Incompatibilities</b>	Strong oxidizers, acids.
<b>Hazardous Decomposition Products</b>	Not determined. During thermal decomposition, it may be possible to generate irritating vapors and/or toxic fumes of carbon oxides (COx), nitrogen oxides (NOx), and hydrogen chloride.
<b>Hazardous Polymerization</b>	Not anticipated to occur with this product.

**11. TOXICOLOGICAL INFORMATION**

**Acute Toxicity** – Not determined for the product formulation. Information for the ingredients is as follows:

Ingredient(s)	Percent	Test Type	Route of Administration	Value	Units	Species
Diazepam	100	LD50	Oral	249, 352, 710, 1240 48, 278, 720 328	mg/kg mg/kg mg/kg	Rat Mouse Rabbit
Diazepam	100	LD50	Dermal	800	mg/kg	Mouse
Benzyl Alcohol	100	LD50	Oral	1040 - 2500	mg/kg	Rat, Mouse, Rabbit, Guinea Pig
Benzyl Alcohol	100	LD50	Dermal	2000	mg/kg	Rabbit
Benzyl Alcohol	100	LC50(8 hr)	Inhalation	1000	ppm	Rat
Ethyl Alcohol	100	LD50	Oral	3450 – 11,500	mg/kg	Rat, Mouse, Dog, Guinea Pig,
Ethyl Alcohol	100	LC50 (10h)	Inhalation	20,000	ppm	Rat
Ethyl Alcohol	100	LC50 (4h)	Inhalation	39,000	mg/m3	Mouse
Propylene Glycol	100	LD50	Oral	10,400 – 29,536	mg/kg	Rat, Mouse, Rabbit, Dog, Guinea Pig
Propylene Glycol	100	LD50	Dermal	20,800	mg/kg	Rabbit

LD 50(oral): Dosage that produces 50% mortality. LD50 (dermal) is the dosage that produces 50% mortality when applied to the skin. LC50 is the concentration in air that produces 50% mortality when inhaled.

**Occupational Exposure Potential**

Information on the absorption of this product via inhalation or skin contact is not available. Published reports have indicated that diazepam has some potential to be absorbed through intact skin. Avoid liquid aerosol generation and skin contact.

**Signs and Symptoms**

None anticipated from normal handling of this product. In the workplace, this product should be considered potentially irritating to the eyes and respiratory tract. In clinical use, common adverse effects include drowsiness, sedation, muscle weakness, and ataxia. Less frequent adverse effects include vertigo, headache, confusion, depression, slurred speech or dysarthria, changes in libido, tremor, visual disturbances, urinary retention or incontinence, gastrointestinal disturbances, decreased blood pressure, changes in salivation, and amnesia.

**Aspiration Hazard**

None anticipated from normal handling of this product.

**Dermal Irritation/Corrosion**

None anticipated from normal handling of this product. Ethanol may produce mild skin irritation with redness and dryness.

**Ocular Irritation/Corrosion**

None anticipated from normal handling of this product. Inadvertent contact of this product with eyes may produce irritation. Exposure to ethanol has produced severe eye irritation in studies in animals.

**Dermal or Respiratory Sensitization**

None anticipated from normal handling of this product.

**Reproductive Effects**

None anticipated from normal handling of this product. A series of reproduction studies was conducted in rats with diazepam at oral dosages of 1, 10, 80 and 100 mg/kg given for periods ranging from 60–228 days prior to mating. At 100 mg/kg, there was a decrease in the number of pregnancies and surviving offspring in these rats. These effects were attributed to prolonged sedative activity, resulting in lack of interest in mating and lessened maternal nursing and care of the young. Neonatal survival of rats at dosages lower than 100 mg/kg was within normal limits. Several neonates in both controls and treated groups showed skeletal or other defects. Further studies in rats at doses up to and including 80 mg/kg/day did not reveal significant teratological effects on the offspring. Rabbits were given dosages of 1, 2, 5 and 8 mg/kg from day 6 through day 18 of gestation.

**11. TOXICOLOGICAL INFORMATION: continued**

<b>Reproductive Effects:</b> continued	No adverse effect on reproduction and no teratological changes were noted. In another study, no evidence of teratogenicity was observed in the offspring of rabbits treated with oral doses up to 30 mg/kg/day during gestation days 7 through 19. In other studies, Swiss-Webster mice were treated orally with 50, 100, 140, or 500 mg/kg diazepam daily for three days on gestation days 8-10 or days 11-13, or for one day only between days 8 and 15 or with 280 or 400 mg/kg for one day only between days 11 and 14. The highest dosage was associated with a maternal mortality rate of 50%. When 140 mg/kg diazepam was administered on day 13, there was 21% fetal resorption. The incidence of cleft palate was significantly increased in the offspring of mice treated with 140 mg/kg diazepam on days 11, 12, and 13, and with single-day administration of 400 mg/kg on days 11-14 and 500 mg/kg on days 9 and 11-15. In another study in hamsters, exencephaly, cleft palate, and limb defects were detected after a single oral dose of 30, 50, 70, or 100 mg on days 8 and 10, or single iv injections of 10 mg diazepam on day 11. There was no dose-related effect. Ethyl alcohol has been shown to produce fetotoxicity in the embryo or fetus of laboratory animals. Chronic prenatal exposure to ethanol has been associated with a distinct pattern of congenital malformations that have collectively been termed the "fetal alcohol syndrome".
<b>Mutagenicity</b>	Diazepam is generally negative in the Ames test for mutagenicity. It produced chromosomal aberrations in an in vitro micronucleus assay in V79 cells. It also produced chromosomal aberrations in an in vivo micronucleus assay and sister chromatid exchange assay in mice.
<b>Carcinogenicity</b>	No statistically significant evidence of tumorigenicity was observed in rats when administered as a dietary admix at doses of 1, 15, and 100 mg/kg/day, rising to 225 mg/kg/day by week 13, over a period of 2 years.
<b>Carcinogen Lists</b>	<b>IARC:</b> Group 3 – Not Classifiable <b>NTP:</b> Not listed <b>OSHA:</b> Not listed for diazepam
<b>Specific Target Organ Toxicity – Single Exposure</b>	NA
<b>Specific Target Organ Toxicity – Repeat Exposure</b>	Based on clinical use, possible target organs include the central nervous system, gastrointestinal system, genitourinary system, liver and cardiovascular system.

**12. ECOLOGICAL INFORMATION**

<b>Aquatic Toxicity</b>	<p>Not determined for the product. Information for ingredients is provided below:</p> <p>*LC50(96 hr) = 84 mg/L in rainbow trout for diazepam                  *EC50(24 hr) = 4.3 - 14 mg/L in Daphnia magna for diazepam                  *EC50(72 hr) = 3.11 - 11.9 mg/L in algae for diazepam</p> <p>LC50(24 hr) = 12,900 - 15,300 mg/L in rainbow trout for ethanol                  LC50 (24 hr) = 11,200 mg/L in fingerling trout for ethanol                  LC50(48 hr) = 9,268 - 14,221 mg/L in Daphnia magna for ethanol                  EC50 = 9310 mg/L in Chlorella pyrenoidosa (green algae) for ethanol</p> <p>LC50(96 hr) = 460 mg/L in Pimephales promelas for benzyl alcohol                  LC50 = 640 mg/L in Leuciscus idus for benzyl alcohol                  EC50(24 hr) = 400 mg/L in Daphnia magna for benzyl alcohol                  EC50 = 95 mg/L in Chlorella pyrenoidosa for benzyl alcohol</p> <p>LC50(96 hr) = 51,600 mg/L in rainbow trout for propylene glycol                  LC50(48 hr) = 34,400 - 43,500 mg/L in Daphnia magna for propylene glycol                  EC50(14 day) = 19,000 mg/L in algae for propylene glycol</p>
-------------------------	---

**12. ECOLOGICAL INFORMATION: continued**

<b>Persistence/Biodegradability</b>	<p>Not determined for the product. Information for ingredients is provided below:</p> <p>*Diazepam is not inherently biodegradable; it degraded less than 5% in an 84-day biodegradation assay. Diazepam degraded approximately 25% in 120 hours in an abiotic degradation assay.</p> <p>Ethanol was reported to be degraded between 45% and 74% in five days in two aqueous biodegradation assays.</p> <p>Benzyl alcohol was degraded over 90% in a 28-day biodegradation assay in sewage sludge.</p> <p>Propylene glycol was reported to be 100% biodegradable after 24-hours in activated sludge.</p>
<b>Bioaccumulation</b>	<p>Not determined for the product. Because of its low octanol:water partition coefficient, ethanol is not anticipated to bioaccumulate.</p>
<b>Mobility in Soil</b>	<p>Not determined.</p>

\* Hoffmann- La Roche, Inc.

Notes:

1. LC50: Concentration in water that produces 50% mortality in fish or Daphnia.
2. EC50: Concentration in water that produces 50% inhibition of growth in algae or immobilization in Daphnia.

**13. DISPOSAL CONSIDERATIONS**

<b>Waste Disposal</b>	<p>All waste materials must be properly characterized. Further, disposal should be performed in accordance with the federal, state or local regulatory requirements. Follow requirements for Schedule IV controlled substances. Product is classified as hazardous waste (D001) based on ignitability.</p>
<b>Container Handling and Disposal</b>	<p>Dispose of container and unused contents in accordance with federal, state and local regulations.</p>

**14. TRANSPORTATION INFORMATION**

<b>ADR/ADG/ DOT STATUS</b>	Not regulated
<b>Proper Shipping Name</b>	NA
<b>Hazard Class</b>	NA
<b>UN Number</b>	NA
<b>Packing Group</b>	NA
<b>Reportable Quantity</b>	NA
<b>ICAO/IATA STATUS</b>	Not regulated
<b>Proper Shipping Name</b>	NA
<b>Hazard Class</b>	NA
<b>UN Number</b>	NA
<b>Packing Group</b>	NA
<b>IMDG STATUS</b>	Not regulated
<b>Proper Shipping Name</b>	NA
<b>Hazard Class</b>	NA
<b>UN Number</b>	NA
<b>Packing Group</b>	NA

**Notes:**

**Transport Comments:** DOT - US Department of Transportation Regulations

DOT: 49 CFR, 173.150(e) excepts aqueous solutions of alcohol containing no more than 24% ethanol and more than 50% water. 173.150(f) excepts combustible liquids having a flash point of 100°F or higher in non-bulk packagings of 119 gallons or less which also meet no other hazard class. 173.150(g) excepts retail products containing less than 70% ethanol in 8 oz bottles or less.

IATA: A58 excepts aqueous solutions of no more than 24% ethanol.

IMDG: Special provision 144 excepts aqueous solutions of no more than 24% ethanol.



**15. REGULATORY INFORMATION**

<b>US TSCA Status</b>	Exempt. However, ethyl alcohol is listed on the TSCA inventory.
<b>US CERCLA Status</b>	Not listed
<b>US SARA 302 Status</b>	Not listed
<b>US SARA 313 Status</b>	Not listed
<b>US RCRA Status</b>	Classified as D001 hazardous waste based on ignitability
<b>US PROP 65 (Calif.)</b>	This product is, or contains chemical(s) known to the State of California to cause developmental toxicity.

Notes: TSCA, Toxic Substance Control Act; CERCLA, US EPA law, Comprehensive Environmental Response, Compensation, and Liability Act; SARA, Superfund Amendments and Reauthorization Act; RCRA, US EPA, Resource Conservation and Recovery Act; Prop 65, California Proposition 65

**GHS/CLP Classification\***      \*In the EU, classification under GHS/CLP does not apply to certain substances and mixtures, such as medicinal products as defined in Directive 2001/83/EC, which are in the finished state, intended for the final user.

<b>Hazard Class</b>	<b>Hazard Category</b>	<b>Pictogram</b>	<b>Signal Word</b>	<b>Hazard Statement</b>
NA	NA	NA	NA	NA

**Prevention**

Keep away from heat/sparks/open flames/hot surfaces.– No smoking  
 Keep container tightly closed  
 Ground/Bond container and receiving equipment  
 Use explosion-proof equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge  
 Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Do not breathe vapor or spray  
 Wash hands thoroughly after handling

**Response**

Get medical attention if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

IF ON SKIN (OR HAIR): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IN CASE OF FIRE: For small fires, use water fog or fire extinguishing media suitable for Class B fires (e.g. dry chemical, carbon dioxide or foam). For large fires, apply water from as far away as possible; use very large quantities of water applied as a mist or spray.

**EU Classification\***      \*Medicinal products are exempt from the requirements of the EU Dangerous Preparations Directive.

<b>Classification(s)</b>	NA
<b>Symbol</b>	NA
<b>Indication of Danger</b>	NA
<b>Risk Phrases</b>	NA
<b>Safety Phrases</b>	S16: Keep away from sources of ignition - No smoking. S23: Do not breathe vapor/spray S24: Avoid contact with the skin S25: Avoid contact with eyes S37/39 Wear suitable gloves and eye/face protection.

**16. OTHER INFORMATION**

Notes:

ACGIH TLV	American Conference of Governmental Industrial Hygienists – Threshold Limit Value
CAS	Chemical Abstracts Service Number
CERCLA	US EPA law, Comprehensive Environmental Response, Compensation, and Liability Act
DOT	US Department of Transportation Regulations
EEL	Employee Exposure Limit
IATA	International Air Transport Association
LD <sub>50</sub>	Dosage producing 50% mortality
NA	Not applicable/Not available
NE	Not established
NIOSH	National Institute for Occupational Safety and Health
OSHA PEL	US Occupational Safety and Health Administration – Permissible Exposure Limit
Prop 65	California Proposition 65
RCRA	US EPA, Resource Conservation and Recovery Act
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments and Reauthorization Act
STEL	15-minute Short Term Exposure Limit
STOT - SE	Specific Target Organ Toxicity – Single Exposure
STOT - RE	Specific Target Organ Toxicity – Repeated Exposure
TSCA	Toxic Substance Control Act
TWA	8-hour Time Weighted Average

MSDS Coordinator: Global Occupational Toxicology  
Date Prepared: June 02, 2014  
Date Revised: January 29, 2015

**Disclaimer:**

The information and recommendations contained herein are based upon tests believed to be reliable. However, Hospira does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. Hospira assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.