



## MATERIAL SAFETY DATA SHEET

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### SECTION 1 - PRODUCT & COMPANY IDENTIFICATION

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**1501 East Woodfield Road**                      **Emergency Telephone**                      **(800) 551-7176**  
**Suite 300 East**  
**Schaumburg, IL 60173**  
**(847) 969-2700**

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**Product Identifier:**                      Thiamine Hydrochloride Injection, USP  
**Chemical Name:**                      Thiamine Hydrochloride  
**Category:**                      Vitamin

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### SECTION 2 - COMPOSITION

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<u>Ingredient</u>	<u>CAS Number</u>	<u>Amount</u>
Thiamine Hydrochloride	67-03-8	100 mg/mL
Chlorobutanol	57-15-8	0.5%
Monothioglycerol	96-27-5	0.5%
Water for Injection	7732-18-5	QS

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### SECTION 3 - HAZARDS IDENTIFICATION

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**Route of Entry:**                      Inhalation, eye/skin contact, or ingestion

**Chemical Listing as  
Carcinogen**

**NTP:**                      No

**IARC:**                      No

**OSHA:**                      No

**Note:**                      NA

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### SECTION 4 - EMERGENCY & FIRST AID MEASURES

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**Eyes:**                      Immediately flush eyes with water for at least 15 minutes. Seek medical attention.

**Skin:**                      Remove contaminated clothing immediately. Flush area with water for at least 15 minutes. Seek medical attention.

**Inhalation:**                      Move exposed subject to fresh air immediately. Give artificial respiration and cardiopulmonary resuscitation (CPR) if required. Seek medical attention.

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**SECTION 4 - EMERGENCY & FIRST AID MEASURES...continued**

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**Ingestion:** Flush mouth out with water immediately. Seek medical attention.  
**Contact Info:** For Adverse Event Information, please call (800) 551-7176 or (847) 969-2700.

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**SECTION 5 - FIRE FIGHTING MEASURES**

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**Fire and Explosion Data**

**Closed Cup Flash Point:** NE

**Open Cup Flash Point:** NE

**Fire Point:** NE

**Autoignition:** NE

**Lower Explosion Limit:** NE

**Upper Explosion Limit:** NE

**General Hazard:** When heated to decomposition, toxic fumes may be emitted.

**Fire Fighting Instructions:** Water spray, dry chemical, carbon dioxide, or foam as appropriate to surroundings.

**Fire Fighting Equipment:** Wear self-containing breathing apparatus and protective clothing.

**Hazardous Combustion Products:** Smoke and toxic fumes of SO<sub>x</sub> and NO<sub>x</sub>.

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**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

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**Clean-Up:** Wear recommended personal protective equipment (See Section 8 - Exposure Controls/Personal Protection). Use absorbent towels or brooms to clean-up spill. Wipe surface area clean with soap and water.

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**SECTION 7 - HANDLING AND STORAGE**

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**General Handling:** When handling pharmaceutical products, avoid all contact and inhalation of dust, fumes, mist, and/or vapors associated with the product.

**Storage Conditions:** Store at 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature]. Protect from light.

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## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

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**Engineering Controls:** General room ventilation is usually satisfactory. Use local exhaust ventilation if necessary.

**Personal Protective Equipment**

**Eye Protection:** Safety glasses or goggles recommended.

**Hand Protection:** Disposable latex gloves recommended.

**Respiratory Protection:** With satisfactory ventilation, respiratory protection is usually not required.

**Skin Protection:** Disposable garments if direct skin contact is anticipated.

**Exposure Limits:**

<u>Compound</u>	<u>Issuer</u>	<u>Type</u>	<u>OEL</u>
Thiamine Hydrochloride	OSHA	PEL	NE
	ACGIH	TLV	NE
	---	STEL	NE
Chlorobutanol	OSHA	PEL	NE
	ACGIH	TLV	NE
	---	STEL	NE
Monothioglycerol	OSHA	PEL	NE
	ACGIH	TLV	NE
	---	STEL	NE
Water for Injection	OSHA	PEL	NE
	ACGIH	TLV	NE
	---	STEL	NE

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## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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**Physical Form/  
Appearance:** Clear, colorless solution

**Boiling Point/Boiling  
Range:** NE

**Melting Point/Melting  
Range:** 248°C

**Freezing Point:** NE

**Vapor Pressure :** NE

**Relative Vapor Density:** NE

**Percent Volatiles:** NE

**pH:** 2.5 - 4.5

**Molecular Weight:** 337.27

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**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES...continued**

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**Solvent Solubility:** Soluble in water

**Note:** NA

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**SECTION 10 - STABILITY AND REACTIVITY**

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**Stability:** Stable

**Conditions to Avoid:** Exposure to light and/or heat may cause decomposition.

**Hazardous Polymerization:** Will not occur

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**SECTION 11 - TOXICOLOGY INFORMATION**

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**Signs & Symptoms of Exposure & Overexposure:** This product is intended for therapeutic use only when prescribed by a physician. Potential adverse reactions from prescribed doses and overdoses are described in the package insert. Adverse reactions from therapeutic doses include: hypersensitivity or life-threatening anaphylactic reactions, collapse and death have been reported, feeling of warmth, pruritus, urticaria, weakness, sweating, nausea, restlessness, tightness of the throat, angioneurotic, edema, cyanosis, pulmonary edema, and hemorrhage into the gastrointestinal tract. Occupational exposure has not been fully investigated.

**Medical Conditions Aggravated by Accidental Exposure:** Individuals with a history of sensitivity to thiamine or to any of the ingredients in this product.

**Acute Toxicity:**

<u>Compound</u>	<u>Type</u>	<u>Route</u>	<u>Species</u>	<u>Dosage</u>
Thiamine Hydrochloride	LD <sub>50</sub>	IP	Mouse	200 mg/kg
	LD <sub>50</sub>	Oral	Rat	3710 mg/kg
	LD <sub>50</sub>	Oral	Mouse	8224 mg/kg

**Other:** IMMEDIATE EFFECTS:  
Eye, skin, and respiratory irritation may occur.

DELAYED EFFECTS:  
Hypersensitivity reactions ranging from mild to severe may occur.

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**SECTION 12 - TRANSPORTATION INFORMATION**

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**UN/NA Number:** NA

**U.S. DOT Hazard Class:** NA

**Proper Shipping Name:** NA

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**SECTION 12 - TRANSPORTATION INFORMATION...**continued

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**Shipping Label:** NA

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**SECTION 13 - DISPOSAL INFORMATION**

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**Disposal Procedure :** Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state, and local regulations.

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**SECTION 14 - OTHER**

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**Key to Abbreviations:** ACGIH - American Conference of Governmental Industrial Hygienists  
HEPA - High Efficiency Particulate Air  
IARC - International Agency for Research on Cancer  
NA - Not Applicable  
NE - Not Established  
NG - Not Given  
NIOSH - National Institute for Occupational Safety and Health  
NTP - National Toxicology Program  
OEL - Occupational Exposure Limit  
OSHA - Occupational Safety and Health Administration  
PEL - Permissible Exposure Limit  
PPM - Parts Per Million  
QS - Quantity Sufficient  
RCRA - Resource Conservation and Recovery Act  
STEL - Short Term Exposure Limit  
TLV - Threshold Limit Value  
USP - United States Pharmacopeia

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