

# Pepsin

## Material Safety Data Sheet

### Section 1. Product and Company Identification

**Product Name** Pepsin

**Product Code** PX0390

**Manufacturer** EMD Chemicals Inc.

P.O. Box 70

480 Democrat Road

Gibbstown, NJ 08027

Prior to January 1, 2003 EMD Chemicals Inc. was

EM Industries, Inc. or EM Science, Division of

EM Industries, Inc.

**Effective Date** 3/3/2003

#### For More Information Call

856-423-6300 Technical Service

Monday-Friday: 8:00 AM - 5:00 PM

#### In Case of Emergency Call

800-424-9300 CHEMTREC

(USA)

613-996-6666 CANUTEC

(Canada)

24 Hours/Day: 7 Days/Week

**Synonym** PEPSIN A

**Material Uses** Analytical reagent.

**Chemical** Enzyme.

**Family**

### Section 2. Composition and Information on Ingredients

**Component**

**CAS # % by Weight**

PEPSIN

9001-75-6 100

### Section 3. Hazards Identification

**Physical State and Appearance** Solid. (Powder.)

**Emergency**

CAUTION!

**Overview**

Handling care generally in keeping with safe laboratory practices is recommended.

**Routes of Entry**

Inhalation. Ingestion.

**Potential Acute Health Effects**

**Effects**

Eyes May cause mild irritation with direct contact.

Skin No known acute effects of this product resulting from skin contact.

Inhalation May cause sensitization by inhalation.

Ingestion No known acute effects of this product resulting from ingestion.

**Potential Chronic Health Effects**

**Carcinogenic Effects** This material is not known to cause cancer in animals or humans.

**Effects**

Additional information See Toxicological Information (section 11)

**Medical Conditions** Repeated or prolonged exposure is not known to aggravate medical

**Aggravated by** condition.

**Overexposure:**

### Section 4. First Aid Measures

**Eye Contact**

Check for and remove any contact lenses. In case of contact, immediately

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	flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion</b>	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

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### Section 5. Fire Fighting Measures

**Flammability of the Product** Non-flammable.

**Auto-ignition**

Not applicable.

**Temperature**

**Flash Points**

Not applicable.

**Flammable Limits**

Not applicable.

**Products of**

Not available.

**Combustion**

**Fire Hazards in**

Not applicable.

**Presence of Various**

**Substances**

**Explosion Hazards in Presence of** Risks of explosion of the product in presence of static discharge: No.

**Various Substances** Risks of explosion of the product in presence of mechanical impact: No.

**Fire Fighting Media and Instructions** Not applicable.

**Protective Clothing (Fire)** Not applicable.

**Special Remarks on** Not available.

**Fire Hazards**

**Special Remarks on** Not available.

**Explosion Hazards**

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### Section 6. Accidental Release Measures

**Small Spill and Leak** Use appropriate tools to put the spilled solid in a convenient waste disposal container.

**Large Spill and Leak** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

**Spill Kit Information** No specific spill kit required for this product.

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### Section 7. Handling and Storage

**Handling** Avoid contact with eyes, skin and clothing. Do not breathe dust. Keep container closed. Do not ingest.

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**Storage** Keep container in a cool, well-ventilated area.

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### Section 8. Exposure Controls/Personal Protection

**Engineering Controls** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

#### Personal Protection

**Eyes** Splash goggles.

**Body** Lab coat.

**Respiratory** Dust respirator. Be sure to use an approved/certified respirator or equivalent.

**Hands** Gloves.

**Feet** Not applicable.

#### Protective Clothing

##### (Pictograms)

**Personal Protection in Case of a Large Spill** Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name	Exposure Limits
PEPSIN	Not available.

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### Section 9. Physical and Chemical Properties

**Odor** Not available.

**Color** Pale color. Yellow. Tan.

**Physical State and Appearance** Solid. (Powder.)

**Molecular Weight** Not available.

**Molecular Formula** Unspecified

**pH** Not available.

**Boiling/Condensation Point** Not available.

**Melting/Freezing Point** Not available.

**Specific Gravity** Not available.

**Vapor Pressure** Not available.

**Vapor Density** Not available.

**Odor Threshold** Not available.

**Evaporation Rate** Not available.

**LogKow** Not available.

**Solubility** Soluble in water.

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### Section 10. Stability and Reactivity

**Stability and Reactivity** The product is stable.

**Conditions of Instability** Not available.

**Incompatibility with Various Substances** Reactive with metals.

## Pepsin

**Rem/Incompatibility** Not available.

**Hazardous** Not available.

### **Decomposition**

#### **Products**

**Hazardous** Will not occur.

#### **Polymerization**

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### **Section 11. Toxicological Information**

#### **RTECS Number:**

Pepsin Powder

SC6132000

#### **Toxicity**

LD50: Not available.

LC50: Not available.

**Chronic Effects on** Not available.

#### **Humans**

**Acute Effects on** Not available.

#### **Humans**

**Synergetic Products** Not available.

**(Toxicologically)**

#### **Irritancy**

Draize Test: Not available.

#### **Sensitization**

Hazardous in case of inhalation (lung sensitizer).

#### **Carcinogenic**

This material is not known to cause cancer in animals or humans.

#### **Effects**

#### **Toxicity to**

Not available.

#### **Reproductive**

#### **System**

**Teratogenic Effects** Not available.

**Mutagenic Effects** Tests on laboratory animals for mutagenic effects are cited in Registry of Toxic Effects of Chemical Substances (RTECS).

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### **Section 12. Ecological Information**

**Ecotoxicity** Not available.

**BOD5 and COD** Not available.

**Toxicity of the** The product itself and its products of degradation are not toxic.  
**Products of**  
**Biodegradation**

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### **Section 13. Disposal Considerations**

**EPA Waste** Not available.

#### **Number**

#### **Treatment**

Material does not have an EPA Waste Number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations.

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### **Section 14. Transport Information**

**DOT Classification** Proper Shipping Name: CHEMICALS,  
N.O.S.

RQ: Not applicable.

**TDG Classification** Not available.



Pepsin

<b>IMO/IMDG Classification</b>	Proper Shipping Name: CHEMICALS, N.O.S. RQ: Not applicable.
<b>ICAO/IATA Classification</b>	Proper Shipping Name: CHEMICALS, N.O.S. RQ: Not applicable.

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**Section 15. Regulatory Information**

**U.S. Federal Regulations** TSCA 8(b) inventory: PEPSIN

SARA 302/304/311/312 extremely hazardous substances: No products were found.  
SARA 302/304 emergency planning and notification: No products were found.  
SARA 302/304/311/312 hazardous chemicals: No products were found.  
SARA 311/312 MSDS distribution – chemical inventory – hazard identification: No products were found.  
SARA 313 toxic chemical notification and release reporting: No products were found.  
Clean Water Act (CWA) 307: No products were found.  
Clean Water Act (CWA) 311: No products were found.  
Clean air act (CAA) 112 accidental release prevention: No products were found.  
Clean air act (CAA) 112 regulated flammable substances: No products were found.  
Clean air act (CAA) 112 regulated toxic substances: No products were found.

**WHMIS (Canada)** Not controlled under WHMIS (Canada).  
No products were found.  
This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.

**International Regulations**

**EINECS** PEPSIN 232–629–3  
**DSCL (EEC)** R36/37/38– Irritating to eyes, respiratory system and skin.  
R42– May cause sensitization by inhalation.

**International Lists** Australia (NICNAS): PEPSIN

Korea (TCCL): PEPSIN

Philippines (RA6969): PEPSIN  
China: No products were found.

**State Regulations** No products were found.  
California prop. 65: No products were found.

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**Section 16. Other Information**

<b>National Fire Protection Association</b>	<b>0 Fire 20 Hazard Health</b>
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Pepsin

(U.S.A.)

Reactivity

Specific  
Hazard

Changed Since Last  
Revision +

**Notice to Reader**

The statements contained herein are based upon technical data that EMD Chemicals Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. EMD CHEMICALS INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.

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