



Safety Data Sheet

Issue Date 02-Sep-2000

Revision Date: 22-Oct-2013

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Pentaerythritol 88%

Other means of identification

SDS # NC-020

Recommended use of the chemical and restrictions on use

Recommended Use No information available.

Details of the supplier of the safety data sheet

Supplier Address

Neuchem Inc.
2062 Union Street, Suite 300
San Francisco, CA 94123 USA
www.neuchem.com

Emergency Telephone Number

Company Phone Number Phone: 415-345-9353
Fax: 415-345-9350
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America) Account No. 100534

2. HAZARDS IDENTIFICATION

Appearance White colored

Physical State Powder

Odor Odorless

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Formula** C5H12O4

Chemical Name	CAS No	Weight-%
Pentaerythritol	115-77-5	88

4. FIRST-AID MEASURES**First Aid Measures**

General Advice	Provide this SDS to medical personnel for treatment.
Eye Contact	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin Contact	Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Inhalation	Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician / poison center if individual's condition declines or if symptoms persist.
Ingestion	If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Most important symptoms and effects

Symptoms	Eye: Dust may cause irritation Skin: May cause irritation Ingestion: May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated. Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Provide general supportive measures and treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Water spray, dry chemical, carbon dioxide, foam.

Unsuitable Extinguishing Media Not determined.**Specific Hazards Arising from the Chemical**

This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions	Wear protective clothing as described in Section 8 of this safety data sheet.
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Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid creating dust.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on Safe Handling	Handle in accordance with good industrial hygiene and safety practice. Wash face, hands, and any exposed skin thoroughly after handling. Use with adequate ventilation. Avoid generation of dust. Avoid contact with skin, eyes or clothing. Keep container tightly closed. Avoid ingestion and inhalation.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep container tightly closed and store in a cool, dry and well-ventilated place. Store away from incompatible materials. Keep container tightly closed.
Incompatible Materials	Strong oxidizing agents, Strong acids, Acid chlorides, Acid anhydrides, Thiophosphoryl chloride.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Pentaerythritol 115-77-5	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust

Appropriate engineering controls

Engineering Controls	Use adequate ventilation to keep airborne concentrations low.
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Individual protection measures, such as personal protective equipment

Eye/Face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye & face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and Body Protection	Wear appropriate protective gloves / clothing to prevent skin exposure.
Respiratory Protection	Follow OSHA respirator regulations in 29 CFR 1910.134 or European Standard EN 149. Use NIOSH/MSHA or European Standard 149. Use NIOSH/MSHA or European Standard 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Powder	Odor	Odorless
Appearance	White colored	Odor Threshold	Not determined
Color	White		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not determined	
Melting Point/Freezing Point	255-259 °C / 491-498.2 °F	
Boiling Point/Boiling Range	276 °C / 528.8 °F	At 30.00 mm Hg
Flash Point	240 °C / 464 °F	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not available	
Lower Flammability Limit	Not available	
Vapor Pressure	1 mm Hg at 20°C	
Vapor Density	Not available	
Specific Gravity	Not available	
Water Solubility	1 g/18 mL water	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	490 °C (914 °F)	
Decomposition Temperature	Not available	
Kinematic Viscosity	Not available	
Dynamic Viscosity	Not available	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
Molecular Weight	136.15	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Incompatible Materials, dust formation.

Incompatible Materials

Strong oxidizing agents, Strong acids, Acid chlorides, Acid anhydrides, Thiophosphoryl chloride.

Hazardous Decomposition Products

Carbon monoxide. Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	May cause mild eye irritation.
Skin Contact	May cause mild skin irritation.
Inhalation	May cause irritation to the mucous membranes and upper respiratory tract.
Ingestion	May cause discomfort if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Pentaerythritol 115-77-5	= 10000 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Pentaerythritol 115-77-5		50000: 48 h Oryzias latipes mg/L LC50 semi-static		38900: 24 h Daphnia magna mg/L EC50 30477 - 37043: 48 h Daphnia magna mg/L EC50 Static

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

<u>Note</u>	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.
<u>DOT</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated

15. REGULATORY INFORMATION

International Inventories

Not determined

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*

US Federal Regulations

SARA 313

Not determined

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Pentaerythritol 115-77-5	X	X	X

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability	Special Hazards
	1	1	0	Not determined
HMIS	Health Hazards	Flammability	Physical Hazards	Personal Protection
	Not determined	Not determined	Not determined	Not determined

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Revision Note New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet