



Section 1. Identification

Product Identifier

Product Identity Pentaerythritol
Other Means of Identification Mono Pentaerythritol, Pentaerythritol, Pentaerytritol, Pentaerytritoli, Pentek, Pentaeritritol, 2,2-Bis(Hydroxymethyl)-1,3-Propanediol

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

As polyol in alky resins, polyester for urethane foams and coatings.

Details of the Supplier of the Safety Data Sheet

Company Name Silver Fern Chemical, Inc.
2226 Queen Anne Avenue North
Seattle, WA 98109 USA
Customer Service: 1-866-282-3384 /
info@silverfernchemical.com
Website - www.silverfernchemical.com

Emergency 24-hour Emergency Telephone No. Emergency telephone number
Infotrac: 1-800-535-5053; Outside USA & Canada +1-352-323-3500

Customer Service:

Section 2. Hazard(s) Identification

Emergency Overview

WARNING! MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR (DURING PROCESSING)

Classification of the Substance or Mixture Under OSHA's Hazard Communication Standard (1910.1200) Revised 2024 (GHS Revision 7)

Combustible Dust May form combustible dust concentrations in air.



Label Elements

Warning

May form combustible dust concentrations in air.

[Prevention]

No GHS prevention statements

[Response]

No GHS response statements

[Storage]

No GHS storage statements

[Disposal]

No GHS disposal statements

Other Hazards

This product contains no PBT/vPvB chemicals.

This product contains no endocrine disrupting chemicals.

May form combustible dust concentrations in air.

Section 3. Composition/Information on Ingredients

This product contains the following substances that present a hazard within the meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Pentaerythritol CAS Number: 115-77-5 Synonyms: Mono Pentaerythritol, PENTAERYTHRITOL (95% MIN)	95-100%	Not Classified.	No data available.

The actual concentration or concentration range is withheld as a trade secret.

*PBT/vPvB - PBT-substance or vPvB-substance.

The full texts of the phrases are shown in Section 16.



Section 4. First Aid Measures

Description of First Aid Measures

- General** In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
- Inhalation** Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
- Eyes** Rinse with plenty of clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
- Skin** Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
- Ingestion** If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Most Important Symptoms and Effects, Both Acute and Delayed

- Overview** No specific symptom data available.
Treat symptomatically. See section 2 for further details.

Section 5. Fire-Fighting Measures

Extinguishing Media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Unsuitable extinguishing media: Do not use; water jet.

Special Hazards Arising from the Substance or Mixture

Hazardous decomposition: No hazardous decomposition data available.
Explosion: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Advice for Fire-Fighters



As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full-face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking. Dust explosions are possible.

ERG Guide No.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Put on appropriate personal protective equipment (see section 8).
Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Non sparking tools should be used.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Environmental Precautions

Explosion: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
Do not allow spills to enter drains or waterways.

Methods and Material for Containment and Cleaning Up

Sweep or vacuum to clean up spills. Do not use any procedure which causes dispersion of dust into the air if any possibility of ignition exists. Dispose of in accordance with local, state and federal regulations.

Section 7. Handling and Storage

Precautions for Safe Handling

Handle containers carefully to prevent damage and spillage.
Avoid dust generation when handling product to minimize dust explosion potential.
See section 2 for further details. - [Prevention]



Conditions for Safe Storage, Including any Incompatibilities

Keep container tightly closed.
 Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
 Incompatible materials: No available information
 See section 2 for further details. - [Storage]

Specific End Use(s)

No available information.

Section 8. Exposure Controls / Personal Protection

Control Parameters

Exposure

CAS No.	Ingredient	Source	Value
115-77-5	Pentaerythritol	OSHA	5 mg/m ³
		ACGIH	10 mg/m ³
		NIOSH	TWA 10 mg/m ³ (total) TWA 5 mg/m ³ (resp)

The exposure limits for nuisance dust are: OSHA PEL: 15 mg/m³(50 mppcf*) TWA, ACGIH 10 mg/m³.

Exposure Controls

- Respiratory** If workers are exposed to concentrations above the exposure limit, they must use the appropriate, certified respirators.
- Eyes** Protective safety glasses recommended
- Skin** Avoid skin contact. Protective gloves recommended.
- Engineering Controls** It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen- deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).



Use only appropriately classified electrical equipment and powered industrial trucks.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Physical State	Solid.
Form	Powder.
Color	No available information.
Odor	No available information.
Melting Point/Freezing Point	500 °F (260 °C)
Initial Boiling Point and Boiling Range	528.8 °F (276 °C) 3.999671 kPa
Flammability (Solid, Gas)	No available information.
Upper/Lower Flammability or Explosive Limits	Lower Explosive Limit: No available information. Upper Explosive Limit: No available information.
Flash Point	No available information.
Auto-Ignition Temperature	842 °F (450 °C)
Decomposition Temperature	No available information.
pH	No available information.
Viscosity (cSt)	No available information.
Solubility in Water	60 g/l at 59 °F
Partition Coefficient N-Octanol/Water (Log K_{ow})	-1.7
Vapor Pressure (Pa)	< 0.0000001 kPa at 25 °C
Specific Gravity	1.4 at 25 °C
Vapor Density	No available information.
Particle Characteristics	---
Evaporation Rate (Ether = 1)	No available information.
VOC (Weight %)	100 % EPA estimated
Oxidizing Properties	No available information.
Explosive Properties	No available information.
Relative Density	1.399 g/cm ³ at 25 °C
Bulk Density	750 - 850 kg/m ³



Molecular Formula
Molecular Weight

$C_5H_{12}O_4$
136.15 g/mol

Other Information

No other relevant information.

Section 10. Stability and Reactivity

Reactivity

Hazardous Polymerization will not occur.

Chemical Stability

Stable under normal circumstances.

Possibility of Hazardous reactions

No available information.

Conditions to Avoid

Avoid high temperatures and contact with incompatible material. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

No hazardous decomposition data available.

Section 11. Toxicological Information

Acute Toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Pentaerythritol - (115-77-5)	5,110.00, Rat - Category: NA	10,000.00, Rabbit - Category: NA	No data available.	No data available.	No data available.

Carcinogen Data



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Silver Fern Chemical, Inc.
Safety Data Sheet
Pentaerythritol (Mono)

Revision Date: 08/01/2024

CAS No.	Ingredient	Source	Value
115-77-5	Pentaerythritol	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No established limit.

Classification	Category	Hazard Description
Acute Toxicity (Oral)	---	Not applicable.
Acute Toxicity (Dermal)	---	Not applicable.
Acute Toxicity (Inhalation)	---	Not applicable.
Skin Corrosion/Irritation	---	Not applicable.
Serious Eye Damage/Irritation	---	Not applicable.
Respiratory Sensitization	---	Not applicable.
Skin Sensitization	---	Not applicable.
Germ Cell Mutagenicity	---	Not applicable.
Carcinogenicity	---	Not applicable.
Reproductive Toxicity	---	Not applicable.
STOT-Single Exposure	---	Not applicable.
STOT-Repeated Exposure	---	Not applicable.
Aspiration Hazard	---	Not applicable.

Possible routes of entry:

Symptoms and Effects, Both Acute and Delayed:

No specific symptom data available.
Treat symptomatically.

Section 12. Ecological Information

Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
Pentaerythritol - (115-77-5)	5,000.00, Leuciscus idus	33,600.00, Daphnia magna	1,000.00, Pseudokirchneriella subcapitata

Persistence and Degradability



There is no data available on the preparation itself.

Bioaccumulative Potential

No available information.

Mobility in Soil

No available information.

Results of PBT and vPvB Assessment

This product contains no PBT/vPvB chemicals.

Other Adverse Effects

No available information.

Section 13. Disposal Considerations

Waste Treatment Methods

Observe all federal, provincial and local regulations when disposing of this substance.

Section 14. Transport Information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
UN Number	Not regulated.	Not regulated.	Not regulated.
UN proper Shipping Name	Not regulated.	Not regulated.	Not regulated.
Transport Hazard Class(es)	DOT Hazard Class: Not applicable. Sub Class: Not applicable.	IMDG: Not applicable. Sub Class: Not applicable.	Air Class: Not applicable. Sub Class: Not applicable.
Packing Group	Not applicable.	Not applicable.	Not applicable.

Environmental Hazards

Marine Pollutant: No.

Special Precautions for User

No available information.

Section 15. Regulatory Information



Silver Fern Chemical, Inc.
Safety Data Sheet
Pentaerythritol (Mono)

Revision Date: 08/01/2024

Regulatory Overview

The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Toxic Substance Control Act (TSCA)

CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0000115-77-5	Pentaerythritol	Yes		ACTIVE

The Following Flags are Used:

- Active - indicates commercial status designation of active
- E - indicates a substance that is the subject of a Section 5(e) Consent Order under TSCA.
- F - indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- N - indicates a polymeric substance containing no free-radical initiator in its Inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- P - indicates a commenced Premanufacture Notice (PMN) substance.
- R - indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S - indicates a substance that is identified in a final Significant New Uses Rule.
- SP - indicates a substance that is identified in a proposed Significant New Uses Rule.
- T - indicates a substance that is the subject of a final Section 4 test rule under TSCA.
- UVCB Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials
- XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
- Y1 - indicates a polymer that has a number-average molecular weight greater than 1,000 and that was exempt under the 1984 polymer exemption rule.
- Y2 - indicates a polymer that is a polyester and that was exempt under the 1984 polymer exemption rule.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.



Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:

This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Mass RTK Substances (>1%):

Pentaerythritol.

New Jersey RTK Substances (>1%):

Pentaerythritol.

Pennsylvania RTK Substances (>1%):

Pentaerythritol.

OSHA Process Safety Management Standard Highly Hazardous Chemicals, Toxics and Reactives:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA List of Regulated Substances under the Risk Management Plan (RMP) Program:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) under the Minimum Risk Exemption:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA List II or Essential Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.



U.S. - DEA - Exempt Chemical Mixtures - List 1 and 2:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US DHS Chemical Facility Anti-Terrorism Standards (CFATS):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Section 16. Other Information

Revision Date

08/01/2024

DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume damage or expense arising out of or in any way responsibility and expressly disclaim liability for loss, connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.³

The full text of the phrases appearing in section 3 is:

Not applicable.

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