

# SAFETY DATA SHEET

Revision Date 18-Dec-2025

Revision Number 5

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

<b>Product Name</b>	Pentaerythritol
<b>Cat No. :</b>	<b>AC129870000; AC129870010; AC129870050; AC129872500</b>
<b>CAS No</b>	115-77-5
<b>Synonyms</b>	Tetrakis(hydroxymethyl)methane

**Recommended Use**  
**Uses advised against**

Laboratory chemicals.  
Food, drug, pesticide or biocidal product use.

### Details of the supplier of the safety data sheet

#### Company

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

#### Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

## 2. Hazard(s) identification

#### Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

Combustible dust	Yes
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### Label Elements

#### Signal Word

Warning

#### Hazard Statements

May form combustible dust concentrations in air

**Precautionary Statements****Storage**

Store in a well-ventilated place. Keep container tightly closed

**Hazards not otherwise classified (HNOC)**

None identified

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200**

No information available

**3. Composition/information on Ingredients**

Component	CAS No	Weight %
Pentaerythritol	115-77-5	<=100

**4. First-aid measures**

<b>Eye Contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. Do not rub affected area.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Inhalation</b>	Remove from exposure, lie down. Remove to fresh air.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Clean mouth with water.
<b>Most important symptoms and effects</b>	No information available.
<b>Notes to Physician</b>	Treat symptomatically

**5. Fire-fighting measures**

**Suitable Extinguishing Media** Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

**Unsuitable Extinguishing Media** No information available

**Flash Point** 240 °C / 464 °F

**Method -** No information available

**Autoignition Temperature** 490 °C / 914 °F

**Explosion Limits**

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact** No information available

**Sensitivity to Static Discharge** No information available

**Specific Hazards Arising from the Chemical**

Dust can form an explosive mixture with air.

**Hazardous Combustion Products**

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

**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.

**NFPA**

Health	Flammability	Instability	Physical hazards
0	1	0	N/A

**6. Accidental release measures****Personal Precautions** Ensure adequate ventilation. Use personal protective equipment as required.**Environmental Precautions** See Section 12 for additional Ecological Information.**Methods for Containment and Clean Up** Sweep up and shovel into suitable containers for disposal. Use spark-proof tools and explosion-proof equipment. Provide adequate ventilation.**7. Handling and Storage****Handling** Avoid contact with skin and eyes. Do not breathe dust.**Storage.** Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Incompatible Materials. Strong oxidizing agents. Strong acids. Acid anhydrides. Acid chlorides.**8. Exposure controls / personal protection****Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
Pentaerythritol	TWA: 10 mg/m <sup>3</sup>	(Vacated) TWA: 10 mg/m <sup>3</sup> (Vacated) TWA: 5 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	REL = 10 mg/m <sup>3</sup> (TWA) REL = 5 mg/m <sup>3</sup> (TWA)	TWA: 10 mg/m <sup>3</sup>

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

**Engineering Measures** None under normal use conditions.**Personal Protective Equipment****Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.**Respiratory Protection** No protective equipment is needed under normal use conditions.**Recommended Filter type:** Particle filter.**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.**9. Physical and chemical properties****Appearance****Physical State** Solid**Color** White**Odor** Odorless**Odor Threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>• Method</u>
<b>Melting Point/Range</b>	257 - 264 °C / 494.6 - 507.2 °F		
<b>Softening Point</b>	No data available		
<b>Boiling Point/Range</b>	276 °C / 528.8 °F	@ 30 mmHg	
<b>Flash Point</b>	240 °C / 464 °F	<b>Method</b> - No information available	
<b>Flammability (liquid)</b>	Not applicable	Solid	
<b>Flammability (solid,gas)</b>	No information available		
<b>Explosion Limits</b>	No data available		
<b>Autoignition Temperature</b>	490 °C / 914 °F		
<b>Decomposition Temperature</b>	No data available		
<b>pH</b>	No information available		
<b>Viscosity</b>	Not applicable		
<b>Water Solubility</b>	1 G/18 ML WATER (15°C)	Solid	
<b>Solubility in other solvents</b>	No information available		
<b>Partition Coefficient (n-octanol/water)</b>	 		
<b>Component</b>	<b>log Pow</b>		
Pentaerythritol	-1.7		
<b>Vapor Pressure</b>	1 mmHg @ 20 °C		
<b>Density / Specific Gravity</b>	No data available		
<b>Bulk Density</b>	No data available		
<b>Vapor Density</b>	Not applicable		
<b>Particle characteristics</b>	No data available	Solid	
<b>Other Information</b>			
<b>Molecular Formula</b>	C5 H12 O4		
<b>Molecular Weight</b>	136.15		
<b>Evaporation Rate</b>	Not applicable - Solid		

## 10. Stability and reactivity

<b>Reactive Hazard</b>	None known, based on information available
<b>Stability</b>	Stable under normal conditions. Hygroscopic. Moisture sensitive.
<b>Conditions to Avoid</b>	Excess heat. Incompatible products.
<b>Incompatible Materials</b>	Strong oxidizing agents, Strong acids, Acid anhydrides, Acid chlorides
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

## 11. Toxicological information

### Information on expected route of exposure

<b>Inhalation</b>	Not an expected route of exposure.
<b>Ingestion</b>	No known effect based on information supplied.
<b>Eyes</b>	Not an expected route of exposure.
<b>Skin</b>	No known effect based on information supplied.

### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Pentaerythritol	LD50 = 19500 mg/kg ( Rat )	LD50 > 10000 mg/kg ( Rabbit )	LC50 > 5.15 mg/L ( Rat ) 4 h

<b>Toxicologically Synergistic Products</b>	No information available
<b>(b) skin corrosion/irritation;</b>	Based on available data, the classification criteria are not met
<b>(c) serious eye damage/irritation;</b>	Based on available data, the classification criteria are not met
<b>(d) respiratory or skin sensitization;</b> Respiratory Skin	Based on available data, the classification criteria are not met Based on available data, the classification criteria are not met
<b>(e) germ cell mutagenicity;</b>	Based on available data, the classification criteria are not met
<b>(f) carcinogenicity;</b>	Based on available data, the classification criteria are not met  The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Pentaerythritol	115-77-5	Not listed				

<b>(g) reproductive toxicity;</b>	Based on available data, the classification criteria are not met
<b>(h) STOT-single exposure;</b>	Based on available data, the classification criteria are not met
<b>(i) STOT-repeated exposure;</b>	Based on available data, the classification criteria are not met
<b>Target Organs</b>	None known.
<b>(j) aspiration hazard;</b>	Not applicable Solid
<b>Other Adverse Effects</b>	The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information
<b>Symptoms / effects, both acute and delayed</b>	No information available.
<b>Other Adverse Effects</b>	The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.
<b>Endocrine Disrupting Properties</b>	This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

### Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Pentaerythritol	Not listed	LC50: > 100 mg/L, 96h semi-static (Oryzias latipes)	Not listed	EC50: 30477 - 37043 mg/L, 48h Static (Daphnia magna)

**Persistence and Degradability** Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Pentaerythritol	-1.7

### 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. Transport information

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>ATA</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated

### 15. Regulatory Information

#### United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Pentaerythritol	115-77-5	X	ACTIVE	-

#### Legend:

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

- - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b) - Notices of Export** Not applicable

#### International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Pentaerythritol	115-77-5	X	-	204-104-9	X	X	X	X	X	KE-03218

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

#### U.S. Federal Regulations

##### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

##### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)** Not applicable

**Clean Air Act** Not applicable

**OSHA - Occupational Safety and Health Administration** Not applicable

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Pentaerythritol	X	X	X	-	X

#### U.S. Department of Transportation

Reportable Quantity (RQ): N  
 DOT Marine Pollutant N  
 DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

#### Other International Regulations

**Mexico - Grade** No information available

**Authorisation/Restrictions according to EU REACH** Not applicable

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Pentaerythritol	115-77-5	-	-	-

#### Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Pentaerythritol	115-77-5	Listed	Not applicable	Not applicable	Not applicable

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**  
 Not applicable

#### Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)

		Notification	Requirements		
Pentaerythritol	115-77-5	Not applicable	Not applicable	Not applicable	Not applicable

## 16. Other Information

Prepared By	Product stewardship (Regulatory Affairs) Thermo Fisher Scientific email - begel.sdsdesk@thermofisher.com
Revision Date	18-Dec-2025
Print Date	18-Dec-2025
Revision Summary	Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

### 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 SDS**