

Safety Data Sheet

Cetyl Palmitate (Palmityl Palmitate)

Product Code: CETPALM

Section 1: Identification

Product identifier	Cetyl Palmitate
Product code	CETPALM
Chemical name	Hexadecyl hexadecanoate
Synonyms	Palmityl Palmitate; Cetyl Palmitate; Hexadecyl Palmitate; Palmitic Acid Cetyl Ester; Palmitic Acid Palmityl Ester
CAS number	540-10-3
EC number	208-736-6
Molecular formula	C32H64O2
Molecular weight	480.85 g/mol
Appearance	White solid / waxy solid
Product uses	To be used only for scientific research and development. Not for use in humans or animals.
Supplier / Distributor	Chemical Store Inc.
Address	1059 Main Avenue, Clifton, NJ 07011, United States
Telephone / Website / Email	+1 (973) 405-6248 ChemicalStore.com info@ChemicalStore.com
Emergency information	For a medical emergency, contact local emergency services or a poison control center. For product information, contact Chemical Store.

Section 2: Hazards Identification

OSHA HCS classification	Not classified as hazardous under the U.S. OSHA Hazard Communication Standard based on current independent sources reviewed.
GHS classification	Not classified.
Signal word	None required.
Pictograms	None required.
Hazard statements	None required.
Hazards not otherwise classified	No specific HNOI identified in current independent sources reviewed. Fine particles/dust, if generated, may cause mechanical irritation.
Classification basis	Current Thermo Fisher Scientific Chemicals U.S. OSHA 2024 SDS states the substance is not considered hazardous. Current Carl Roth SDS likewise states that cetyl palmitate does not meet GHS classification criteria. PubChem's Laboratory Chemical Safety Summary lists it as 'Not Classified.'

Good-practice precautionary measures

- Avoid unnecessary dust generation and inhalation.
- Avoid prolonged or repeated contact with eyes and skin.
- Use adequate ventilation for laboratory handling.
- Wash hands after handling.
- Keep container closed when not in use.

Section 3: Composition / Information on Ingredients

Component	CAS Number	EC Number	Concentration
Cetyl Palmitate / Palmityl Palmitate	540-10-3	208-736-6	Substance; product purity/assay per current specification or Certificate of Analysis.

Section 4: First Aid Measures

Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Obtain medical attention if irritation persists.
Skin contact	Wash with soap and water. Remove contaminated clothing if necessary. Obtain medical attention if irritation develops or persists.
Inhalation	Move person to fresh air. Obtain medical attention if respiratory discomfort or other symptoms persist.
Ingestion	Rinse mouth. Do not induce vomiting unless directed by medical personnel. Obtain medical advice if a significant amount is swallowed or symptoms occur.
Most important symptoms/effects	No specific acute or delayed effects are established for GHS classification in the current independent sources reviewed. Mechanical irritation may occur from particulate exposure.
Notes to physician	Treat symptomatically.

Section 5: Fire Fighting Measures

Suitable extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Select media appropriate for surrounding conditions.
Specific hazards	Organic waxy solid. Combustion or thermal decomposition may generate carbon monoxide, carbon dioxide and irritating smoke.
Protective equipment	Firefighters should wear appropriate protective equipment and self-contained breathing apparatus when required by fire conditions.
Special precautions	Cool exposed containers as appropriate and avoid breathing combustion products.

Section 6: Accidental Release Measures

Personal precautions	Avoid generating dust. Ensure adequate ventilation. Use appropriate eye and skin protection during cleanup.
Environmental precautions	Prevent unnecessary release to drains, waterways and soil.
Cleanup methods	Sweep, scoop or vacuum without creating airborne dust. Place collected material in a suitable closed container for reuse or disposal.
Large spills	Contain material and recover mechanically where practicable.

Section 7: Handling and Storage

Handling	Use good laboratory hygiene. Avoid unnecessary dust generation and eye/skin contact. Provide adequate ventilation.
Storage	Keep container tightly closed in a dry, cool and well-ventilated area. Protect from contamination and excessive heat.
Incompatible materials	Strong oxidizing agents.
Specific end use	To be used only for scientific research and development. Not for use in humans or animals.

Section 8: Exposure Controls / Personal Protection

Occupational exposure limits	No substance-specific OSHA PEL or ACGIH TLV identified in the current independent SDS sources reviewed.
Engineering controls	Provide adequate general ventilation. Use local exhaust where dust or aerosol could be generated.
Eye / face protection	Safety glasses with side shields; goggles where dusty conditions warrant additional protection.
Hand protection	Suitable protective gloves for the task and duration of contact.
Skin / body protection	Laboratory coat or appropriate protective work clothing.
Respiratory protection	Normally not required under adequately ventilated conditions. If significant airborne particulate is generated, use appropriate NIOSH-approved particulate respiratory protection in accordance with a compliant respiratory-protection program.
Hygiene measures	Wash hands after handling and before eating, drinking or leaving the work area.

Section 9: Physical and Chemical Properties

Property	Value / Description	Property	Value / Description
Physical state	Solid / waxy solid	Color	White
Odor	No reliable characteristic odor selected	Molecular formula	C32H64O2
Molecular weight	480.85 g/mol	Melting point	Approx. 53-56 °C; literature/reference products commonly report 55-56 °C
Water solubility	Practically insoluble / very low solubility	Organic solubility	Soluble or slightly soluble in selected organic solvents; solvent-dependent
pH	Not applicable to the neat solid	Flash point	No reliable value selected for this SDS
Vapor pressure	Expected to be very low at ambient temperature	Relative density	No definitive product-specific value selected
Flammability	No GHS flammability classification identified	Explosive properties	Not classified as explosive
Oxidizing properties	Not classified as oxidizing	Partition behavior	Lipophilic long-chain fatty ester

Section 10: Stability and Reactivity

Reactivity	No hazardous reactivity expected under normal recommended conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous polymerization expected.
Conditions to avoid	Excessive heat, contamination and incompatible materials.

Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon monoxide, carbon dioxide and other irritating combustion products may form in a fire.

Section 11: Toxicological Information

Likely routes of exposure	Eye contact, skin contact, inhalation of dust/particulate and incidental ingestion.
Acute toxicity	Current independent sources reviewed do not provide sufficient evidence for acute toxicity classification.
Skin corrosion / irritation	Current independent sources reviewed do not classify cetyl palmitate for skin irritation.
Serious eye damage / irritation	Current independent sources reviewed do not classify cetyl palmitate for serious eye damage/eye irritation.
Respiratory / skin sensitization	No classification identified in current independent sources reviewed.
Mutagenicity	No classification identified in current independent sources reviewed.
Carcinogenicity	No classification identified in current independent sources reviewed.
Reproductive toxicity	No classification identified in current independent sources reviewed.
STOT / aspiration hazard	No classification identified in current independent sources reviewed.

Comparison note: the uploaded 2018 supplier SDS assigns mild skin irritation (H316) and serious eye irritation (H319). More recent independent sources reviewed do not classify the substance as hazardous. This Chemical Store SDS follows the current independent evidence while retaining conservative good-practice handling precautions.

Section 12: Ecological Information

Ecotoxicity	No GHS aquatic hazard classification identified in the current independent sources reviewed. Avoid unnecessary environmental release.
Persistence / degradability	No definitive product-specific value selected for this SDS.
Bioaccumulative potential	No definitive classification selected. The substance is a highly lipophilic long-chain fatty ester.
Mobility in soil	Expected to have low water mobility because of very low water solubility; no product-specific mobility value selected.
Other adverse effects	No specific adverse environmental effect identified for classification.

Section 13: Disposal Considerations

Product waste	Dispose of unused material and contaminated cleanup residues in accordance with applicable federal, state and local regulations. Waste generators are responsible for determining the proper waste classification.
Packaging	Empty containers may retain residue. Recycle or dispose of packaging according to contamination status and applicable requirements.
Environmental protection	Do not intentionally discharge bulk material to drains or waterways.

Section 14: Transport Information

Mode	Classification
U.S. DOT	Not regulated as dangerous goods / hazardous material based on current independent SDS information reviewed.
IATA / ICAO	Not regulated as dangerous goods in the sources reviewed.
IMDG / IMO	Not regulated as dangerous goods in the sources reviewed.
UN number / Packing group	Not assigned.

The shipper must confirm current transport requirements for the actual product, quantity, packaging, mode, route and destination.

Section 15: Regulatory Information

Chemical identity	Cetyl Palmitate / Palmityl Palmitate, CAS 540-10-3, EC 208-736-6.
OSHA Hazard Communication	Not classified as hazardous under the current U.S. OSHA 2024 supplier SDS independently reviewed.
TSCA	Current supplier/regulatory sources identify cetyl palmitate as a commercial U.S. chemical substance; confirm applicable inventory obligations for the actual source and use.
FDA substance identity	FDA GSRS identifies Cetyl Palmitate, CAS 540-10-3, UNII 5ZA2S6B08X.
Regulatory use note	Chemical Store product use statement: To be used only for scientific research and development. Not for use in humans or animals.

Section 16: Other Information

Revision date	2026-10-05
Initial preparation date	2026-10-05
SDS version	1.0
Product covered	CETPALM - Cetyl Palmitate / Palmityl Palmitate

Version	Date	Description
1.0	2026-10-05	Initial Chemical Store SDS for Cetyl Palmitate (Palmityl Palmitate), product code CETPALM.

Independent research basis

- Thermo Fisher Scientific Chemicals U.S. Safety Data Sheet for Palmityl Palmitate, CAS 540-10-3, revised 22-Dec-2025 under OSHA HCS 2024: not considered hazardous; no label elements required.
- Carl Roth Safety Data Sheet for synthetic Cetyl Palmitate, CAS 540-10-3, revised 18-Sep-2024: substance does not meet GHS classification criteria; labeling not required.
- PubChem Laboratory Chemical Safety Summary for Cetyl Palmitate, CID 10889: primary hazards listed as Not Classified; molecular formula C32H64O2 and molecular weight approximately 480.8 g/mol.
- FDA Global Substance Registration System: Cetyl Palmitate, CAS 540-10-3, EC 208-736-6, UNII 5ZA2S6B08X.
- Sigma-Aldrich / USP reference-standard product information: Cetyl Palmitate CAS 540-10-3; literature melting point 55-56 °C.

Comparison with uploaded supplier SDS

The uploaded supplier SDS (Toronto Research Chemicals, revision 10-Apr-2018) was used only for comparison and for the exact product-use statement requested by Chemical Store. It identifies Palmityl Palmitate, CAS 540-10-3, EC 208-736-6, formula C32H64O2, molecular weight 480.85, white solid, melting point 53-55 °C, and classifies the substance as Skin Irritation Category

3 / H316 and Eye Irritation Category 2A / H319. The current independent sources listed above do not classify cetyl palmitate as hazardous, so those newer independent sources form the primary classification basis for this SDS.

Disclaimer

The information in this Safety Data Sheet is believed to be accurate based on reasonably available information and the sources identified above. It is intended for occupational safety and hazard communication and is not a product specification or warranty of suitability for a particular purpose. Users are responsible for confirming the current manufacturer SDS, lot-specific specification, intended use, workplace conditions, transportation requirements and all applicable laws and regulations.