

Material Safety Data Sheet

Section 1. Chemical Identification

Product Name: Palmitoylethanolamide

Synonyms: Palmitoyl Ethanolamide; N-(2-hydroxyethyl)-hexadecanamide; Palmidrol; PEA

Section 2. Hazards Identification

Emergency Overview: Avoid contact and inhalation.

Potential Health Effects (Acute and Chronic): Material may be irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation, ingestion, or skin absorption. May cause eye, skin, or respiratory system irritation.

Signs and Symptoms of Exposure: To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Medical Conditions Generally Aggravated By: No data available.

Section 3. Information on Ingredients

Chemical Name	CAS No.	Concentration	EC No.	Risk Phrases
Palmitoylethanolamide	544-31-0	100%	208-867-9	No phrase applies

Section 4. First Aid Measures

Emergency and First Aid Procedures: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined and tested by medical personnel.

In case of skin contact, immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

Section 5. Fire Fighting Measures

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data available.



Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

Flammable Properties and Hazards: No data available.

Hazardous Combustion Products: No data available.

Suitable Extinguishing Media: Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.

Unsuitable Extinguishing Media: A solid water stream may be inefficient.

Section 6. Accidental Release Measures

Steps to Be Taken in Case Material is Released or Spilled:

Avoid release into the environment.

Avoid raising and breathing dust and provide adequate ventilation.

As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

Transfer to a chemical waste container for disposal

Section 7. Handling and Storage

Hazard Label Information: Avoid contact with skin and eyes.

Do not reuse this container. Use with
adequate ventilation.

Wash thoroughly after handling.

Precautions To Be Taken in Handling: Avoid breathing (dust, vapor, mist, gas).

Avoid prolonged or repeated exposure.

To Be Taken in Storing: keep tightly closed. Store at correct temperature.

Section 8. Exposure Controls/Personal Protection

Chemical Name	Cas No	OSHA PEL	ACGIH TLV	Other Limits
Palmitoylethanolamide	544-31-0	No Data	No Data	No Data

Protective Equipment Summary – Hazard Label Information: Compatible chemical-resistant gloves, Eye wash station in work area, Lab coat, Safety glasses, Safety shower in work area, Vent Hood

Respiratory Equipment (Specify Type): NIOSH approved respirator, as conditions warrant.

Eye Protection: Safety glasses

Protective Gloves: Compatible chemical-resistant gloves

Other Protective Clothing: Lab coat

Engineering Controls (Ventilation etc.): Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.



Work/Hygienic/Maintenance Practice: Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Wash thoroughly after handling.

Section 9. Physical and Chemical Properties

Physical States: ☐ Gas ☐ Liquid ☒ Solid

Melting Point: No data.

Boiling Point: No data.

Autoignition Pt: No data.

Flash Pt: No data.

Specific Gravity (Water = 1): No data.

Vapor Pressure (vs. Air or mm Hg): No data.

Vapor Density (vs. Air = 1): No data.

Evaporation Rate: No data

Solubility in Water: No data.

Solubility Notes: ~0.01 mg/ml in EtOH:PBS (pH 7.2) (1:10); ~2 mg/ml in EtOH; ~5 mg/ml in DMSO; ~10 mg/ml in DMF;

Percent Volatile: No data.

Formula: C₁₈H₃₇NO₂

Molecular Weight: 299.50

Appearance and Odor: white to off-white granule

Section 10. Stability and Reactivity

Stability: Unstable ☐ Stable ☒

Conditions To Avoid - Instability: No data available.

Incompatibility - Materials to Avoid: strong oxidizing agents

Hazardous Decomposition or Byproducts: carbon dioxide
carbon monoxide
nitrogen oxides

Possibility of Hazardous Reactions: will occur ☐ Will not occur ☒

Conditions to Avoid - Hazardous Reaction: No data available.

Section 11. Toxicological Information

The toxicological effects of this product have not been thoroughly studied.

Chronic Toxicological Effects: No data available.

Chemical Name	Cas No	NTP	IARC	ACGIH	OSHA
Palmitoylethanolamide	544-31-0	n.a.	n.a.	n.a.	n.a.



Section 12. Ecological Information

Avoid release into the environment.

Runoff from fire control or dilution water may cause pollution.

Section 13. Disposal Considerations

Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.

Section 14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name Not dangerous goods.

LAND TRANSPORT (European ADR/RID)

ADR/RID Shipping Name Not dangerous goods.

AIR TRANSPORT (ICAO/IATA)

ICAO/IATA Shipping Name Not dangerous goods.

Additional Transport Information: Transport in accordance with local, state, and federal regulations.

Section 15. Regulatory Information

European Community Hazard Symbol codes

No data available.

European Community Risk and Safety Phrases

S24/25- Avoid contact with skin and eyes.

S37/39- Wear suitable gloves and eye/face protection.

US EPA SARA Title III

Chemical Name	CAS No	Sec.302(EHS)	Sec.304 RQ	Sec.313(TRI)	Sec.110
Palmitoylethanolmide	544-31-0	No	No	No	No

Other US EPA or State Lists

Chemical Name	CAS No	CAA, HAP, ODC	CWA NPDES	TSCA	CA PROP.65
Palmitoylethanolmide	544-31-0	No	No	Inventory	No

Regulatory Information Statement: This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

16. Other Information Company Policy or Disclaimer

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