

Material Safety Data Sheet (MSDS) for TPA (Phorbol-12-Myristate-13-Acetate)

I. Identification:

Product name: TPA (Phorbol-12-Myristate-13-Acetate)

Product Catalog: 4174

CAS#: 16561-29-8

Manufacturer Supplier: Cell Signaling Technology

3 Trask Lane

Danvers, MA 01923 USA

978-867-2300 TEL

978-867-2400 FAX

978-578-6737 EMERGENCY TEL

II. Composition/Information:

Substance Name: Phorbol-12-Myristate-13-Acetate

Synonyms: TPA, 12-O-Tetradecanoylphorbol-13-acetate, PMA (tumor promoter)

Formula: $C_{36}H_{56}O_8$

Molecular Weight: 616.80 g/mol

III. Hazard Identification:

This product is not for use in humans. It is intended for research purposes only.

EMERGENCY OVERVIEW:

OSHA hazards: Delayed target organ effects, irritant

Target Organs: Bone marrow, lungs, gastrointestinal tract, blood, skin

HMIS	Health: 2 (*Chronic health hazard)	Flammability: 0	Reactivity: 0
NFPA	Health: 2	Flammability: 0	Reactivity: 0

Potential Health Effects:

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: May be harmful if swallowed.

IV. First Aid Measures:

Inhalation: If inhaled, remove to fresh air. If breathing is difficult, get medical attention.

Ingestion: If swallowed, wash out mouth with water provided person is conscious. Get medical attention.

Skin exposure: In case of contact, immediately wash skin with soap and water for at least 15 minutes. Remove contaminated clothing. Wash clothing before reuse.

Eye exposure: In case of contact with eyes, immediately flush eyes with water for at least 15 minutes. Get medical attention.

V. Fire Fighting Measures:

Flash Point: No data available.

Autoignition Temperature: No data available.

Explosion: No data available.

Fire extinguishing media: Water spray, dry chemical, alcohol foam, or carbon dioxide.

Firefighting: Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes.

VI. Accidental Release Measures: Wear appropriate personal protective equipment. Sweep up material and avoid raising dust. Avoid breathing dust. Transfer to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

VII. Handling And Storage:

Store in tightly closed container at -20°C. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

VIII. Exposure Controls/Personal:

Ventilation System: A system of local and/or general exhaust is recommended.

Skin Protection: Wear compatible chemical resistant gloves and protective clothing.

Eye protection: Wear protective safety glasses or chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

IX. Physical And Chemical Properties

Appearance:	lyophilized powder
pH:	data not available
Melting Point:	50-70°C (122-158°F)
Boiling Point:	data not available
Freezing Point:	data not available
Volatile Organic Compounds:	data not available
Solubility in water:	soluble in phosphate buffered saline

X. Stability and Reactivity:

Stability: Stable under normal conditions.

Conditions/materials to avoid: Exposure to light, strong acids, strong oxidizing agents

Hazardous Decomposition: Carbon oxides

XI. Toxicological Information:

Acute Toxicity: Intravenous, mouse, LD50: 0.309 mg/kg

Behavioral: Somnolence (general depressed activity). Skin and appendages (skin): hair, other.

Signs and Symptoms of Exposure: Tumor promoter

Potential Health Effects:

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: May be harmful if swallowed.

Target Organs: Bone marrow, lungs, gastrointestinal tract, blood, skin.

XII. Ecological Information:

No data available.

XIII. Disposal Considerations: Dispose of in accordance with federal, state, local environmental regulations.

XIV. Transport Information:

DOT: This substance is considered Non-Hazardous for transport.

IATA: This substance is considered Non-Hazardous for air transport.

XV. Regulatory Information:

SARA 302/313 Listed: No

SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard

OSHA Hazards: Delayed target organ effects, Irritant

Canada (WHMIS): DSL No, NDSL No.

TSCA listed: No

Massachusetts Right To Know: Not Listed

New Jersey Right To Know: Listed

Pennsylvania Right To Know: Listed

California Prop 65: This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

XVI. Other Information:

This compound is sold only for research use only. It is not for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.