

Phorbol-12-myristate-13 acetate

PKC Activator

Catalog # P61-900D

Lot # J3942-22

CAS # 16561-29-8

Product Description

Molecular Formula: C₃₆H₅₆O₈

Appearance: colorless viscous oil

Molecular Weight: 616.8

Purity: >99% (HPLC); NMR (conforms)

Solubility: May be dissolved DMSO (25 mg/ml); or ethanol (25 mg/ml)

Alias

12-O-Tetradecanoylphorbol-13-acetate; PMA; TPA

Specific Activity

PKC Activator

Storage and Stability

Store desiccated as supplied at -20°C for up to 2 years.

Store solutions at -20°C for up to 2 months.

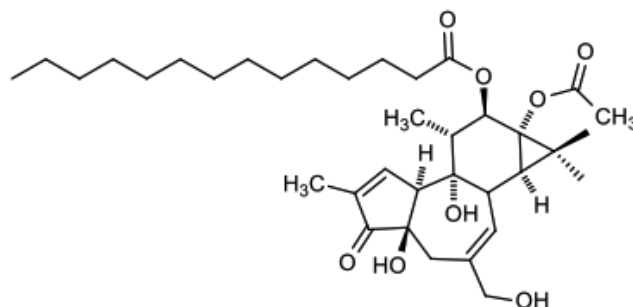
Scientific Background

General information (1). Activates protein kinase C (10-100 ng/ml) (2). May display PKC-independent effects in various cell types (3). Induces cardiac differentiation of mesenchymal stem cells (4).

References

1. Merck Index 14:7332
2. Saraiva L et al. Eur. J. Pharmacol. 2003 491:101
3. Doerner D et al. J. Neurosci. 1990 10:1699
4. Seo HH et al. Stem Cell Res. Ther. 2016 7:190

Molecular Structure



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SAFETY DATA SHEET

Article 1 – Identification of the Substance

Product Name: Phorbol-12-myristate-13 acetate (PMA; TPA)

Catalog # P61-900D

This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, agricultural, nor pesticidal applications.

Manufacturer's Name: SignalChem Biotech Inc.
Street Address: 110-13120 Vanier Place
City, Prov. Postal Code: Richmond, BC, V6V 2J2
Fax: 604-232-4601
EMERGENCY PHONE: 604-232-4600

Article 2 - Hazardous Identification

2.1 Classification of Substance (GHS)

Skin Corrosion/Irritation, Category 2

2.2 Label Elements

Classification according to Regulation (EC) No 1272/2008



GHS Signal Word: WARNING

GHS Hazard Phrases:

H315	Causes skin irritation.
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GHS Precaution Phrases:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases:

P302+352	IF ON SKIN: Wash with plenty of soap and water.
P333+313	If skin irritation or a rash occurs, get medical advice/attention.
P362+364	Take off contaminated clothing and wash it before reuse.

GHS Storage and Disposal Phrases:

Please refer to Section 7 for Storage and Section 13 for Disposal Information

2.3 Other hazards: Causes skin irritation.

Article 3 – Composition/Information on Ingredients

3.1 Substance

Product Name(s): Phorbol-12-myristate-13 acetate (PMA; TPA)
Chemical Name: 12-O-Tetradecanoylphorbol-13-acetate
Molecular Formula: C₃₆H₅₆O₈
CAS Number: 16561-29-8
Concentration: 100%

Article 4 – First Aid

4.1 Description of First Aid Measures

General: Move out of dangerous area and contact a doctor. Provide them with this data sheet.

If Inhaled: Move to fresh air, and monitor breathing. Give artificial respiration if breathing stops. Get immediate medical attention.

In Case of Skin Contact: Remove contaminated clothing. Immediately wash with soap and water for an extended period of time. Consult a doctor if symptoms occur. Wash clothing before reuse.

In Case of Eye Contact: Hold eyelids apart and immediately flush eye(s) with copious amounts of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

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If Swallowed: Rinse out the mouth with water provided person is conscious. Do not give anything by mouth. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2 Important Symptoms and Effects: Lung, skin and eye irritant. Prolonged exposure is not known to aggravate prior medical conditions

Article 5 – Fire Fighting Measures

5.1 Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. A solid water stream may be inefficient.

5.2 Special Hazards

No data available.

5.3 Precautions for Fire Fighters

Wear suitable protection to prevent contact and respirator for fumes, and full protective gear to prevent contact with skin and eyes.

Article 6 – Accidental Release Measures

6.1 Personal Precautions

Relocate personnel to a safe area and ensure ventilation is in working order. Wear protective equipment. Avoid dust formation and inhalation of fumes. As conditions warrant, wear an approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

6.2 Environmental Precautions

Do not let product enter drains, if safe to do so.

6.3 Methods for Containment and Clean-up

Contain spill and collect, as appropriate. Sweep up material without generating dust clouds and place in a sealed container for disposal. Clean surface where spill occurred.

Article 7 – Handling and Storage

7.1 Handling Precautions

Use in a well ventilated area. Avoid formation of dust or aerosols. Keep away from sources of ignition. Wear suitable protective clothing. Avoid inhalation, and skin or eye contact.

7.2 Safe Storage Measures

Keep product in a sealed contained located in dry well ventilated area. Store in accordance with information listed on the product insert.

Article 8 – Exposure Controls/Personal Protection

8.1 Control Parameters

Contains no substances with occupational exposure limit values.

8.2 Specific Engineering Controls

Keep airborne levels low by using a fume hood or local exhaust.

8.3 Personal Protection

Eye/Face Protection: Use safety glasses.

Skin Protection: Use chemical resistant gloves. Remove and dispose of gloves properly after use. Wash hands thoroughly after use.

Body Protection: Wear a lab coat.

Respiratory Protection: If risk is present wear a dust respirator.

Article 9 – Physical and Chemical Properties

Appearance: colorless viscous oil

Odour: data not available

Odour Threshold: data not available

pH: data not available

Melting/Freezing Pt: data not available

Boiling Pt: data not available

Flash Pt: data not available

Explosive Properties: data not available

Solubility notes: May be dissolved in DMSO (25 mg/ml); or ethanol (up to 25 mg/ml)

Article 10 – Stability and Reactivity

10.1 Stability: Stable under recommended transport or storage conditions

10.2 Conditions to Avoid: Moist and hot conditions

10.3 Incompatibility – Materials to Avoid: Strong acids/alkalis, strong oxidizing/reducing agents

10.4 Hazardous Decomposition Products: Possible toxic fumes upon combustion. No known decomposition information.

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Article 11– Toxicological Information

11.1 Toxicological Effects: The toxicological effects of this product have not been thoroughly studied.

Acute Toxicity: Intraperitoneal LD (mouse): >1 mg/kg; IV (mouse): 309 ug/kg; skin (mouse): TDLo: 30204 ug/kg; Oral (mouse): 51 mg/kg

Skin Corrosion/Irritation: Classified based on available data

Eye Damage/Irritation: Classified based on available data

Respiratory or Skin Sensitization: Classified based on available data

Germ Cell Mutagenicity: Classified based on available data

Carcinogenicity: Classified based on available data

Additional Information: RTECS No: QH4377000. Exposure may cause irritation of eyes, mucous membranes, upper respiratory tract and skin. To the best of our knowledge, the chemical, physical and toxicological properties have not been fully investigated.

Article 12 – Ecological Information

12.1 Toxicity

Avoid release into the environment.

12.2 Degradability

Data not available

Article 13 – Disposal Considerations

13.1 Waste Treatment

Product and Contaminated Packaging: Dispose according to national legislation. Contact a licensed chemical disposal company.

Article 14 – Transport Information

14.1 DOT

Not dangerous goods

14.2 IMDG

Not dangerous goods

14.2 IATA

Not dangerous goods

Article 15 – Regulatory Information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Article 16 – Other Information

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SignalChem shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalog for additional terms and conditions of sale.

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