

4/25/08



SIGMA-ALDRICH

Material Safety Data Sheet

Date Printed: 04/01/2008
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Version 1.30

Section 1 - Product and Company Information

Product Name	Calmodulin from bovine testes		
Product Number	P1431		
Brand	Sigma Chemical		
Company	Sigma-Aldrich		
Street Address	3050 Spruce Street		
City, State, Zip, Country	SAINT LOUIS, MO 63103 US		
Technical Phone:	800-325-5832	Emergency Phone:	314-776-6555
Fax:	800-325-5052		

Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS#</u>	<u>SARA 313</u>	<u>EC no</u>	<u>Annex I Index Number</u>
PHOSPHODIESTERASE 3',5'-CYCLICNUCLEOTIDEACTIVATOR	77107-46-1	No		

Formula
Synonyms

Section 3 - Hazards Identification

Emergency Overview

Caution: Avoid contact and inhalation.

HMIS Rating

Health: 0 Flammability: 0 Reactivity: 0

NFPA Rating

Health: 0 Flammability: 0 Reactivity: 0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Dermal Exposure

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assume adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Autoignition Temp: N/A

Extinguishing Media Suitable

Water spray, Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting Protective Equipment

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

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s)

Wear protective equipment.

Methods for Cleaning Up

Spilled material should be carefully wiped up or moistened with water and removed.

Section 7 - Handling and Storage

Handling

User Exposure

Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage

Suitable

Keep tightly closed. Store away from heat. Store at -20°C

Section 8 - Exposure Controls / PPE

Engineering Controls

Mechanical exhaust required. Safety shower and eye bath.

Personal Protective Equipment

Other

Wear appropriate government approved respirator, chemically resistant gloves, safety goggles, other protective clothing.

General Hygiene Measures

Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance

Physical State

Solid

Molecular Weight N/A

pH N/A

BP/BP Range N/A

MP/MP Range N/A

Sigma Chemical - P1431

Page 2

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Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
SG/Density	N/A
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Partition Coefficient	N/A
Decomposition Temp.	N/A
Flash Point °F	N/A
Flash Point °C	N/A
Explosion Limits	N/A
Flammability	N/A
Autoignition Temp	N/A
Solubility	N/A

N/A = not available

Section 10 - Stability and Reactivity

Stability

Stable.
Stable.

Hazardous Decomposition Products

Hazardous Decomposition Products
Nature of decomposition products not known

Hazardous Polymerization

Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

Route of Exposure

Skin Contact

May cause skin irritation.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

May cause eye irritation.

Inhalation

May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion

May be harmful if swallowed.

Sensitization

Sensitization

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Conditions Aggravated by Exposure

The toxicological properties have not been thoroughly investigated.

RTECS Number: N/A

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: None

Non-Hazardous for Transport This substance is considered to be nonhazardous for transport.

IATA

Non-Hazardous for Air Transport Non-hazardous for air transport.

Section 15 - Regulatory Information

US Classification and Label Text

US Statements

Caution: Avoid contact and inhalation.

United States Regulatory Information

SARA Listed: No

Canada Regulatory Information

WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

Section 16 - Other Information

Disclaimer

For R&D use only. Not for drug, household or other uses.

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. SigmaAldrich Inc., shall not be held liable for any damage resulting from handling or contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.