

Bis-trifluoromethyl Ethylphosphonate: sc-210929



The Power to Question

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Bis-trifluoromethyl Ethylphosphonate

Product Number: sc-210929

Supplier: Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, CA 95060
800.457.3801 or 831.457.3800

Emergency: ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

2. HAZARDS IDENTIFICATION

WHMIS Classification (Canada)

B3 Combustible Liquid
D2B Toxic Material Causing Other Toxic Effects
Severe Eye Tract Irritant
Moderate Skin//Respiratory Tract Irritant
Moderate Skin/Respiratory Tract Irritant

WHMIS Symbols (Canada)



Classification of the Substance or Mixture and Label Elements

GHS Hazards Classification (According to EU Regulation 1272/2008 and US OSHA 1910.1200)

Flammable Liquids (Category 4)
Acute Toxicity, Oral (Category 4)
Skin Irritation (Category 2)
Serious Eye Damage (Category 1)
Specific Target Organ Toxicity, Single Exposure; Respiratory Tract Irritation (Category 3)

EU Classification (According to EU Regulation 67/548/EEC)

Harmful if swallowed. Risk of serious damage to the eyes. Irritating to respiratory system and skin.

EU Risk and Safety Statements (According to EU Regulation 67/548/EEC)

Hazard Statements	Hazard Codes
Harmful	Xn



Risk Codes and Phrases

R22 Harmful if swallowed.
R41 Risk of serious damage to the eyes.
R37/38 Irritating to respiratory system and skin.

Safety Precaution Codes and Phrases

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S16 Keep away from sources of ignition – no smoking.
S46 If swallowed, seek medical advice immediately and show this container or label.
S27/28 After contact with skin, take off immediately all contaminated clothing and wash with plenty of soap and water.

GHS Hazards Identification (According to EU Regulation 1272/2008 and US OSHA 1910.1200)

Signal Word	Danger



GHS Hazard Statements

H227 Combustible liquid and vapor.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

GHS Precautionary Statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P301/P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305/P351/P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Unclassified Hazards/Hazards Not Otherwise Classified

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Molecular Formula: C₆H₉F₆O₃P

CAS Registry #: 650–16–8

Synonyms

Ethyl-phosphonic Acid Bis(2,2,2-trifluoroethyl) Ester

Molecular Weight: 274.10

EC#: -

Mixtures

Not a mixture

4. FIRST AID MEASURES

Description of First Aid Measures

General Advice

If medical attention is required, show this safety data sheet to the doctor.

If Inhaled

If inhaled, move casualty to fresh air. If not breathing, give artificial respiration and consult a physician.

In Case of Skin Contact

Remove contaminated clothing and shoes. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In Case of Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If Swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting unless advised to do so by a physician or Poison Control Center. Seek medical attention.

Most Important Symptoms and Effects, Both Acute and Delayed

No data available

Indication of any Immediate Medical Attention and Special Treatment Needed

No data available

5. FIREFIGHTING MEASURES

Extinguishing Media

Advice for Firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Special Hazards Arising from the Substance or Mixture

Carbon oxides, Phosphorous oxides, Hydrogen fluoride

Advice for Firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further Information

No data available

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment and Emergency Procedures**

Use recommended personal protective equipment (see Section 8). Adequate ventilation must be provided to ensure vapors or mists are not inhaled. Vapors are heavier than air and may accumulate in low areas. All sources of ignition, including sources of static discharge, must be removed from area.

Environmental Precautions

Material should not be allowed to enter the environment. Prevent further spillage or discharge into drains, if safe to do so.

Methods and Materials for Containment and Cleaning Up

Contain the spill and then collect using non-combustible absorbent material (such as clay, diatomaceous earth, vermiculite or other appropriate material). Place material in a suitable, sealable container and then dispose according to local/national regulations and guidance (see Section 13).

Reference to Other Sections

For protective equipment, refer to Section 8. For disposal, see Section 13.

7. HANDLING AND STORAGE**Precautions for Safe Handling**

Avoid contact with skin and eyes. Ventilation and proper handling are to be used to prevent the formation of vapors and mists. Remove all sources of ignition and take precautionary measures to prevent the buildup of electrostatic discharge (ground and bond containers as appropriate). No smoking, eating or drinking around this material. Wash hands after use.

Conditions for Safe Storage, Including any Incompatibilities

Ensure container is kept securely closed before and after use. Keep in a well ventilated area and do not store with strong oxidizers or other incompatible materials (see Section 10). Store at -20°C under inert atmosphere. Hygroscopic/moisture sensitive.

Specific End Uses

For scientific research and development only. Not for use in humans or animals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control Parameters**

Contains no components with established occupational exposure limits.

Exposure Controls

A laboratory fume hood or other appropriate form of local exhaust ventilation should be used to avoid exposure.

Personal Protective Equipment

All recommendations below are advisory in nature and a risk assessment should be performed by the employer/end user prior to use of this product. The type of protective equipment must be selected based on the amount and concentration of the dangerous material being used in the workplace.

Eye/Face Protection

Safety glasses or safety goggles. All equipment should have been tested and approved under appropriate standards, such as NIOSH (US), CSA (Canada), or EN 166 (EU).

Skin Protection

Gloves should be used when handling this material. Gloves are to be inspected prior to use. Contaminated gloves are to be removed using proper glove removal technique so that the outer surface of the glove does not contact bare skin. Dispose of contaminated gloves after use in compliance with good laboratory practices and local requirements.

Gloves used for incidental exposures (splash protection) should be designated as "low chemical resistant" or "waterproof" by EU standard EN 374. Unrated gloves are not recommended.

Gloves used for prolonged direct exposure (immersion) should be designated "chemical resistant" as per EN 734 with the resistance codes corresponding to the anticipated use of the material.

These recommendations may not apply if the material is mixed with any other chemical, or dissolved into a solution. A risk assessment must be performed to ensure the gloves will still offer acceptable protection.

Body Protection

Fire resistant (Nomex) lab coat or coveralls.

Respiratory Protection

Recommended respirators are NIOSH-approved OV/Multi-Gas/P95 or CEN-approved ABEK-P2 respirators. These are to be only used as a backup to local exhaust ventilation or other engineering controls. If the respirator is the only means of protection, a full-face supplied air respirator must be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Appearance	Oil	Odor Threshold	No data available
Melting Point/ Freezing Point	No data available	Partition Coefficient: n-octanol/water	No data available
Flash point	No data available	Flammability (Solid/Gas)	No data available
Vapor Pressure	No data available	Relative Density	No data available
Oxidizing Properties	No data available	Decomposition Temperature	No data available
Explosive Properties	No data available	Odor	No data available
Initial Boiling Point/ Boiling Range	No data available	Viscosity	No data available
Evaporation Rate	No data available	Auto-Ignition Temperature	No data available
Upper/Lower Flammability /Explosive Limits	No data available	Solubility	Chloroform, Dichloromethane
Vapor Density	No data available	pH	No data available

Other Information

no data available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

No data available

Conditions to Avoid

Heat. Flame. Sparks.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

No data available

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

No data available

Skin Corrosion/Irritation

Moderate skin/eye/respiratory tract irritant.

Serious Eye Damage/Irritation

No data available

Respiratory or Skin Sensitization

No data available

Germ Cell Mutagenicity

No data available

Carcinogenicity

No data available

Reproductive Toxicity/Teratogenicity

No data available

Single Target Organ Toxicity – Single Exposure

Moderate respiratory tract irritation.

Single Target Organ Toxicity – Repeated Exposure

No data available

Aspiration Hazard

No data available

Potential Health Effects and Routes of Exposure

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion Harmful if swallowed.

Skin May be harmful if absorbed through skin. Causes skin burns.

Eyes Causes severe eye burns and possible permanent eye damage.

Signs and Symptoms of Exposure

No data available

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

Additional Information

RTECS: Not listed

12. ECOLOGICAL INFORMATION**Toxicity**

no data available

Bioaccumulative potential

no data available

PBT and vPvB assessment

no data available

Persistence and degradability

no data available

Mobility in soil

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods****Product**

Product may be burned in an incinerator equipped with afterburner and scrubber. Excess and expired materials are to be offered to a licensed hazardous material disposal company. Ensure that all Federal and Local regulations regarding the disposal and destruction of this material are followed.

Contaminated Packaging

Dispose of as above.

Other Considerations

Product is not to be disposed of in sanitary sewers, storm sewers, or landfills.

14. TRANSPORT INFORMATION**DOT (US)**

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. REGULATORY INFORMATION

This safety data sheet complies with the requirements of WHMIS (Canada), OSHA 1910.1200 (US), and EU Regulation EC No. 1907/2006 (European Union).

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture**Canada**

DSL/NDSL Status: This product is not listed on the Canadian DSL/NDSL.

United States

TSCA Status: This product is not listed on the US EPA TSCA.

European Union

ECHA Status: This product is not registered with the EU ECHA.

Chemical Safety Assessment

No data available

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

3/27/2013