

Safety Data Sheet

Release 1.0
Revision 01/23/2021
Date of issue 05/29/2021



page 1 of 5

1 Identification of the substance

Identification of the substance

Identification of the substance Diethyl 2,2-diethoxyethylphosphonate

Additional identification P-(2,2-Diethoxyethyl)phosphonic acid diethyl ester;Diethyl (2,2-diethoxyethyl) phosphonate

Biosynth catalog no. FD21775

REACH No. A registration number is not available for this substance as the substance or its uses are exempted from registration or the annual tonnage does not require a registration.

Use of the substance/preparation

Identified uses other biochemicals

Restriction on use not for food or drug use, for laboratory use only

Company Carbosynth Ltd
8&9 Old Station Business Park
GB-COMPTON RG20 6NE

Phone +44 1635 578444

Mail customerservice@biosynth-carbosynth.com

Emergency Number

Phone Office hours: +44 1635 578444

2 Hazards identification

Health Hazards

Skin corrosion/irritation (Category 2)

Serious eye damage/eye irritation (Category 2)

Single exposure: Respiratory tract irritation (Category 3)

Environmental Hazards

not classified

Physical Hazards

not classified

Possible Hazards (Summary)

GHS Labeling

Regulatory List
EC1272/08 Regulation (EC) 1272/2008 (GHS/CLP)

Symbol
GHS07 exclamation mark

Pictogram

*Signal Word*

Warning Warning

Hazard Statement

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary Statement

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove casualty to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Remove contact lenses, if possible.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents / container in accordance with local / regional / national / international regulations.

Additional Information

Caution! To the best of our knowledge the toxicological properties of this material have not been thoroughly investigated.

3 Composition/information on ingredients**Substance related information**

<i>Substance name</i>	Diethyl 2,2-diethoxyethylphosphonate
<i>Synonymes</i>	P-(2,2-Diethoxyethyl)phosphonic acid diethyl ester; Diethyl (2,2-diethoxyethyl)phosphonate
<i>Cas No.</i>	[7598-61-0]
<i>Formula</i>	C ₁₀ H ₂₃ O ₅ P

4 First aid measures**First Aid: Eye**

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

First Aid: Skin

Wash immediately with plenty of water and soap for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothes before reuse. Call a physician.

First Aid: Ingestion

Wash out mouth with water provided person is conscious. Call a physician.

First Aid: Inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Hints for Physician: Treatment

Treat symptomatically.

5 Firefighting measures

Extinguishing Media

Suitable

foam, dry extinguishing powder, carbon dioxide (CO₂), water spray jet

Hazards During Fire-Fighting

toxic fumes

Protective Equipment for Fire-Fighting

Wear a self-contained breathing apparatus and chemical protective clothing.

Fire-Fighting/Further Advice

Do not inhale explosion and combustion gases. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

6 Accidental release measures

Personal Precautions

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Provide adequate ventilation.

Environmental Precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure all waste water is collected and treated via a waste water treatment plant.

Methods for Cleaning or Taking Up

not available

Further Accidental Release Measures

Collect in closed and suitable containers for disposal. Clear contaminated areas thoroughly. Ventilate affected area.

7 Handling and storage

Handling

Handling advice

Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid prolonged or repeated exposure. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling.

Storage

Storage temperature

store at 2°C - 8°C

Storage condition

keep under inert gas: Nitrogen, protect from light

Storage Requirements

Keep container tightly closed in an upright position to prevent leakage. Keep container tightly closed when not in use, since hygroscopic. Keep away from incompatible substances. Keep container tightly closed when not in use.

8 Exposure controles/personal protection

Exposure controles

Industrial Hygiene

Mechanical exhaust required. Safety shower and eye shower.

Personal Protective Equipment**Respiratory Protection**

Wear NIOSH/MSHA or European Standard EN 149 approved respirator.

Hand Protection

Wear compatible chemical-resistant gloves to prevent skin exposure.

Eye Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA.

Body Protection

Wear compatible chemical-resistant gloves and clothing to prevent skin exposure.

Advice on Safe Handling

Wash contaminated clothing before reuse. Wear appropriate protective clothing to prevent exposure.

9 Physical and chemical properties**Form**

clear liquid

Molar Mass

254.26 g/mol

Density

1.052 g/cm³

Flash Point

110 °C

10 Stability and reactivity**Conditions to Avoid**

incompatible materials, moisture, light, air

Substances to Avoid

strong oxidizers

Decomposition Products

phosphorus oxides, carbon dioxide (CO₂), carbon monoxide

11 Toxicological information**Other Relevant Toxicity Information**

We are not aware of any toxicology data.

12 Ecological Information**Biodegradation**

no data available

Bioaccumulation

no data available

Distribution in Environment

no data available

13 Disposal considerations

Advice on Disposal and Packaging
Advice on Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and Exhaust air. Dispose of waste according to laws applicable.

Advice on Packaging

not available

14 Transport information
Road Transport (ADR/GGVS)

not regulated

Air Transport (IATA)

not regulated

15 Other regulations
Other Regulations
Regulatory List

EINECS, TCSI

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Diethyl 2,2- diethoxyethylphosphonate	-----	-----	-----

16 Additional information
GHS Labeling
Regulatory List

EC1272/08

Regulation (EC) 1272/2008 (GHS/CLP)

Symbol

GHS07

exclamation mark

Signal Word

Warning

Warning

Hazard Statement

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

Precautionary Statement

P261

Avoid breathing dust/fume/gas/mist/vapours/spray.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352

IF ON SKIN: Wash with plenty of soap and water.

P304+P340

IF INHALED: Remove casualty to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Remove contact lenses, if possible.

P403+P233

Store in a well-ventilated place. Keep container tightly closed.

P501

Dispose of contents / container in accordance with local / regional / national / international regulations.