

Dimethyl phosphite

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name Dimethyl phosphite
Chemical Formula $C_2H_7O_3P$
CAS No. 868-85-9
EC No. 212-783-8
REACH Registration No. Not known.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s) Laboratory chemicals, manufacture of substances

1.3 Details of the supplier of the safety data sheet

Supplier
Company Identification Bond Chemicals Ltd
Address of Supplier Cinnamon House Cinnamon Park
Crab Lane
Warrington

Postal code WA20XP
Telephone: 01925661750
Fax Not known.
E-mail info@bondchemicals.co.uk
Office hours 09:00 - 18:00

1.4 Emergency telephone number

Emergency Phone No. +44 (0) 203 394 9841
Contact OHES Environmental

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP) Flam. Liq. 3 :Flammable liquid and vapour.
Skin Sens. 1 :May cause an allergic skin reaction.
Muta. 2 :Suspected of causing genetic defects.
Carc. 2 :Suspected of causing cancer.
Aquatic Chronic 3 :Harmful to aquatic life with long lasting effects.

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)
Product Name Dimethyl phosphite

Hazard Pictogram(s)



GHS02



GHS08



GHS07

Signal Word(s)

Warning

Hazard Statement(s)

H226: Flammable liquid and vapour.
H317: May cause an allergic skin reaction.
H341: Suspected of causing genetic defects.
H351: Suspected of causing cancer.
H412: Harmful to aquatic life with long lasting effects.

Precautionary Statement(s)

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352: IF ON SKIN: Wash with plenty of water.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P321: Specific treatment (see Medical Advice on this label).
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.
P370+P378: In case of fire: Use water spray, dry powder or carbon dioxide to extinguish.
P403: Store in a well-ventilated place.
P405: Store locked up.
P501: Dispose of contents in accordance with local, state or national legislation.

2.3 Other hazards

None known.

2.4 Additional Information

For full text of H/P Statements see section 16.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
Dimethyl phosphonate	868-85-9	212-783-8	<= 100 %	Flam. Liq. 3 H226 Skin Sens. 1 H317 Muta. 2 H341 Carc. 2 H351 Aquatic Chronic 3 H412	GHS02 GHS08 GHS07

Contains no non-classified vPvB substances or substances with a Union workplace exposure limit.
For full text of H/P Statements see section 16.

3.2 Mixtures

Not applicable.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation Remove person to fresh air and keep comfortable for breathing.
Skin Contact Take off immediately all contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see Medical Advice on this label). Rinse skin with water. IF exposed or concerned:
Eye Contact Rinse eyes with water as a precaution.
Ingestion Call a poison center or a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Allergic contact dermatitis.

4.3 Indication of any immediate medical attention and special treatment needed

Specific treatment (see Medical Advice on this label). IF exposed or concerned: Get medical advice/attention. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media Dry chemical, dry powder, foam, carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapour. Combustion or thermal decomposition will evolve toxic and irritant vapours.

5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Ensure full personal protection (including respiratory protection) during removal of spillages.

6.2 Environmental precautions

Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Adsorb spillages onto sand, earth or any suitable adsorbent material. Contain spillages with sand, earth or any suitable adsorbent material. Earth may be

shovelled to contain spillage and to avoid contamination of sewers and watercourses.

6.4 Reference to other sections

See Also Section 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting/equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep cool. Store locked up.

Storage temperature

Ambient.

Storage life

Stable under recommended storage conditions.

Incompatible materials

None known.

7.3 Specific end use(s)

Laboratory chemicals, manufacture of substances

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

No Occupational Exposure Limit assigned.

8.2 Exposure controls

8.2.1. Appropriate engineering controls

Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Use with ventilation, local exhaust ventilation or breathing protection. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2. Personal protection equipment



Eye Protection

Wear eye protection with side protection (EN166).



Skin protection

Wear protective clothing and gloves: Impervious gloves (EN 374).



Respiratory protection

Normally no personal respiratory protection is necessary. Handling of larger amounts A suitable mask with filter type A (EN14387 or EN405) may be appropriate.



Thermal hazards

None known.

8.2.3. Environmental Exposure Controls

Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state

Liquid.

Colour

Colourless

Odour

Not known.

Melting point/freezing point

Not known.

Boiling point or initial boiling point and boiling range

170 - 171 °C

Flammability

Not known.

Lower and upper explosion limit

Not known.

Flash Point

70 °C

Auto-ignition temperature

Not known.

Decomposition Temperature

Not known.

pH	Not known.
Kinematic Viscosity	Not known.
Solubility	Solubility (Water) : Not known. Solubility (Other) : Not known.
Partition coefficient n-octanol/water (log value)	Not known.
Vapour pressure	Not known.
Density and/or relative density	Density (g/ml) : 1.19 g/cm ³
Relative vapour density	Not known.
Particle characteristics	Not known.

9.2 Other information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Non-reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5 Incompatible materials

Not known.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity - Ingestion	Not classified.
Acute toxicity - Skin Contact	Not classified.
Acute toxicity - Inhalation	Not classified.
Skin corrosion/irritation	Not classified.
Serious eye damage/irritation	Not classified.
Skin sensitization data	May cause an allergic skin reaction.
Respiratory sensitization data	Not classified.
Germ cell mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	Suspected of causing cancer.
Reproductive toxicity	Not classified.
Lactation	Not classified.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Aspiration hazard	Not classified.

11.2 Information on other hazards

Not known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Harmful to aquatic life with long lasting effects.

Toxicity - Aquatic invertebrates	Not known.
Toxicity - Fish	Not known.
Toxicity - Algae	Not known.
Toxicity - Sediment Compartment	Not known.
Toxicity - Terrestrial Compartment	Not known.

12.2 Persistence and degradability

Not known.

12.3 Bioaccumulative potential

Not known.

12.4 Mobility in soil

Not known.

12.5 Results of PBT and vPvB assessment

Not known.

12.6 Endocrine disrupting properties

None known.

12.7 Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Containers must not be punctured or destroyed by burning, even when empty. Do not allow to enter drains, sewers or watercourses. Do NOT landfill. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator. Dispose of this material and its container to hazardous or special waste collection point. Dispose at suitable refuse site.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

Not classified as hazardous for transport.

14.1 UN number or ID number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not classified as a Marine Pollutant.

14.6 Special precautions for user

Not known

14.7 Maritime transport in bulk according to IMO instruments

Not known

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation

Not listed

REACH: ANNEX XIV list of substances subject to authorisation

Not listed

REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Dimethyl phosphonate (868-85-9)

Community Rolling Action Plan (CoRAP) Regulation (EU) N° 2019/1021 of the European Parliament and of the Council on persistent organic pollutants

Dimethyl phosphonate (868-85-9)
Not listed

Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer

Not listed

Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals

Not listed

National regulations

Other

Not known.

15.2 Chemical Safety Assessment

A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Acronyms

ATE : Acute Toxicity Estimate

CAS : Chemical Abstracts Service

CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

DNEL : Derived No Effect Level
EC : European Community
EINECS : European Inventory of Existing Commercial Chemical Substances
LTEL : Long term exposure limit
PBT : Persistent, Bioaccumulative and Toxic
PNEC : Predicted No Effect Concentration
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL : Short term exposure limit
STOT : Specific Target Organ Toxicity
vPvB : very Persistent and very Bioaccumulative

Key literature references and sources for Regulation (EC) No. 1272/2008 (CLP)
data used to compile the SDS

Training Advice
Disclaimers

Regular safety training as appropriate
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