

Safety Data Sheet

#70062252 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Diisopropyl phosphite	1809-20-7	C6H15O3P	10	17 Aug 2026

SECTION 1

Identification

Product name	Diisopropyl phosphite
CAS number	1809-20-7
Chemical formula	C6H15O3P
Molecular weight	194.21
SMILES	CC(C)OP(=O)OC(C)C
EC / EINECS number	217-317-7
Recommended use & restrictions	For research use only. Manufacture of laboratory chemicals, Industrial, For professional use only. Not for human or veterinary use
Emergency telephone	0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification



WARNING

CODE	HAZARD STATEMENT
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
CODE	PRECAUTIONARY STATEMENT
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash thoroughly after handling
P280	Wear protective gloves/protective clothing/eye protection/face protection
P302+P352	IF ON SKIN: Wash with soap and water
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do, continue rinsing
Other hazards (e.g. PBT / vPvB, not classified)	This substance/mixture does not meet the PBT or vPvB criteria of REACH regulation, annex XIII. Does not contain components considered to have endocrine-disrupting properties

SECTION 3

Composition / information on ingredients

Purity / concentration	c. 100% Diisopropyl phosphite (CAS: 1809-20-7)- H302, H315, H319, H335
Impurities / stabilising additives	None

SECTION 4

First-aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing; give oxygen or artificial respiration if necessary; get immediate medical advice/attention.
Skin contact	Take off immediately all contaminated clothing and wash immediately with plenty of water; do not remove clothing if it sticks to the skin; get immediate medical advice/attention.
Eye contact	Rinse immediately with plenty of water and seek medical advice; remove contact lenses if present and easy to do; continue rinsing.
Ingestion	Rinse mouth out with water; do not induce vomiting; get immediate medical advice/attention; do not give an unconscious person anything to drink.
Symptoms / effects & medical attention	Inhalation may cause irritation; skin contact causes irritation; eye contact causes serious irritation and potential serious damage; ingestion may cause nausea, vomiting, and diarrhea.

SECTION 5

Fire-fighting measures

Suitable extinguishing media	Foam, dry powder, carbon dioxide, water spray, sand.
Unsuitable extinguishing media	Do not use a heavy water stream.
Special hazards	Carbon oxides (CO, CO ₂), phosphorus oxides, irritating vapours.
Advice for firefighters	Use self-contained breathing apparatus and chemically protective clothing; evacuate area; use water spray or fog for cooling exposed containers.

SECTION 6

Accidental release measures

Personal precautions & PPE	Wear recommended personal protective equipment; do not breathe vapours; ensure proper grounding procedures.
Environmental precautions	Prevent liquid from entering sewers, watercourses, underground or low areas; notify authorities if liquid enters sewers or public waters.
Containment & clean-up methods	Soak up spills with inert solids such as clay or diatomaceous earth; collect in sealable containers; contain by bunding.

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

Storage temperature	Ambient
Precautions for safe handling	Avoid contact with skin, eyes and clothing; avoid formation of vapours; ensure suitable ventilation; do not handle in a confined space.
Conditions for safe storage (incompatibilities)	Keep only in the original container in a cool, well-ventilated place away from direct sunlight and heat sources. Keep container tightly closed. Store in a dry protected location. Material is hygroscopic.

SECTION 8

Exposure controls / personal protection

Occupational exposure limits (OEL / WEL)	<i>No data available</i>
DNEC/PNEC data	<i>No data available</i>
Eye / face protection	Safety glasses Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.
Skin / hand protection	Wear chemically protective clothing and nitrile rubber gloves (EN 374).
Respiratory protection	Full-face respirator Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

SECTION 9

Physical & chemical properties

Density (g/mL)	0.99 g/mL DERIVED FROM: LITERATURE
Flash point	112 °C DERIVED FROM: LITERATURE
Acidity	Neutral DERIVED FROM: LITERATURE
Appearance / physical state	Liquid DERIVED FROM: LITERATURE
Colour	Colourless DERIVED FROM: LITERATURE
Odour	Pungent DERIVED FROM: LITERATURE
Melting / freezing point	No data available
Boiling point	79 °C at 14 mmHg (19 hPa) DERIVED FROM: LITERATURE
Solubility (water)	Soluble in water and chloroform DERIVED FROM: LITERATURE
pH	No data available
Vapour pressure	No data available
Partition coefficient (log Pow)	No data available
Auto-ignition / decomposition temp	No data available

SECTION 10

Stability & reactivity

Chemical stability / reactivity	Stable under normal conditions.
Conditions to avoid	Heat, sparks, flame, moisture.
Incompatible materials	Combustible materials.
Hazardous decomposition products	Carbon oxides, phosphorus oxides, irritating vapours.

SECTION 11**Toxicological information**

Acute toxicity (LD50 / LC50)	Harmful if swallowed.
Skin corrosion / irritation	Causes skin irritation.
Eye corrosion / irritation	Causes serious eye irritation.
Respiratory / skin sensitisation	May cause respiratory irritation
Carcinogenicity	No data available. No data available
Mutagenicity	<i>No data available</i>
Reproductive toxicity	<i>No data available</i>
STOT (single / repeated exposure)	May cause respiratory irritation.
Aspiration hazard	<i>No data available</i>
Endocrine disruptors	<i>No data available</i>

SECTION 12**Ecological information**

Aquatic toxicity	<i>No data available</i>
Persistence & degradability	Potentially biodegradable.
Bioaccumulative potential	Not potentially bioaccumulable.
Mobility in soil	Mobile.
PBT / vPvB assessment	<i>Not applicable</i>

SECTION 13**Disposal considerations**

Waste treatment / disposal methods	<i>Not applicable</i>
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SECTION 14

Transport information

UN number	Not applicable
Proper shipping name	Not applicable
Class	Not applicable
Packing group	Not applicable
Transport category	Not applicable
Tunnel code	Not applicable
Packing instruction (ADR)	Not applicable
Packing instruction (IMDG)	Not applicable
Environmental hazards	No data available
Special precautions for user	No data available

SECTION 15

Regulatory information

REACH code	Not applicable
UFI code	Not applicable
ECHA notification	Not applicable
Chemical safety assessment carried out?	No

SECTION 16

Other information**Revision notes / other information**

Last reviewed 22-July-2021 | Latest Review: 16-Aug-2026 According to REACH etc. (Amendment etc.) (EU Exit) Regulations 202 No. 1577. Hazard classification and labelling according to Regulation (EC) 1272/2008

All eye/face protection should comply with EN ISO 16321-1:2022

Respiratory equipment: Reusable air-purifying respirator (APR)

Filter Type: ABEK

Standard: EN 14387

National Regulations:

- Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances

Other regulations, limitations and legal regulations:

- Directive 94/33/EC- The protection of young people at work

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