

according to Regulation (EC) No. 1907/2006 (REACH)

Tetraphenylphosphonium phenolate

Version number: GHS 2.0 Replaces version of: 2021-07-30 (GHS 1) SECTION 1: Identification of the substance/mixture and of the company/undertaking **Product identifier** 1.1 Identification of the substance Tetraphenylphosphonium phenolate this information is not available Registration number (REACH) CAS number 15464-47-8 Article number A0098763 1.2 Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses General use 1.3 Details of the supplier of the safety data sheet Chemos GmbH & Co. KG Sonnenring 7 84032 Altdorf Germany Telephone: +49 871-966346-0 Telefax: +49 871-966346-13 e-mail: chemos@chemos.de Website: http://www.chemos.de/

e-mail (competent person)

chemos@chemos.de

1.4 **Emergency telephone number**

Emergency information service

+49 89 1 92 40

Poison centre				
Country	Name	Postal code/ city	Telephone	Telefax
United Kingdom	National Poison Information Centre Medical Toxicology Unit	SE14 5ER Lon- don	+44 171 635 91 91	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Category	Hazard class and cat- egory	Hazard state- ment
3.10	acute toxicity (oral)	4	Acute Tox. 4	H302
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
4.1C	hazardous to the aquatic environment - chronic hazard	2	Aquatic Chronic 2	H411

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

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2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance

Identifiers

CAS No

 15464-47-8

 Specific Conc. Limits
 M-Factors
 ATE
 Exposure route

 500 ^{mg}/_{kg}
 oral

Molar mass

432.5 ^g/_{mol}

C24H20P*C6H5O

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SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Rinse skin with water/shower.



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Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed none

SECTION 5: Firefighting measures

5.1 **Extinguishing media**

Suitable extinguishing media Water, Foam, ABC-powder

Unsuitable extinguishing media Water jet

5.2 Special hazards arising from the substance or mixture

Deposited combustible dust has considerable explosion potential.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2), Phosphorus oxides (PxOy)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 **Environmental precautions**

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains, Take up mechanically

Advice on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.



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6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas. Ground/bond container and receiving equipment.

- Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Removal of dust deposits.

- Ventilation requirements

Use local and general ventilation.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)										
Coun- try	Name of agent	CAS No	Identi- fier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [mg/m³]		Source
GB	dust		WEL		10				i	EH40/ 2005
GB	dust		WEL		4				r	EH40/ 2005

Notation

a 15-minute peri-
riod of 8 hours



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8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

In the case of wanting to use the gloves again, clean them before taking off and air them well.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

Particulate filter device (EN 143).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	solid (powder)
Colour	white
Odour	characteristic
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	not determined
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	not determined
Flash point	not applicable
Auto-ignition temperature	not determined
Decomposition temperature	not relevant
pH (value)	not applicable
Kinematic viscosity	not relevant
Solubility(ies)	not determined



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Partition coefficient	
Partition coefficient n-octanol/water (log value)	this information is not available

Vapour pressure	not determined
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Density and/or relative density

Density	not determined
Relative vapour density	information on this property is not available

Particle characteristics	no data available			
Other information				
Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant			
Other safety characteristics				
Solid content	100 %			

SECTION 10: Stability and reactivity

10.1 Reactivity

9.2

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

Hints to prevent fire or explosion

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

10.5 Incompatible materials

Oxidisers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.



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SECTION 11: Toxicological information

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

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity Harmful if swallowed.

- Acute toxicity estimate (ATE) Oral 500 mg/kg

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity Shall not be classified as carcinogenic.

Reproductive toxicity Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

- **12.2 Persistence and degradability** Data are not available.
- 12.3 Bioaccumulative potential

Data are not available.

- **12.4 Mobility in soil** Data are not available.
- **12.5 Results of PBT and vPvB assessment** Data are not available.

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12.6 **Endocrine disrupting properties**

Information on this property is not available.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

SECTION 14: Transport information

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

14.1	UN number or ID number	
	ADR/RID/ADN	UN 3077
	IMDG-Code	UN 3077
	ICAO-TI	UN 3077
14.2	UN proper shipping name	

	en proper simpping name	
	ADR/RID/ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
	IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
	ICAO-TI	Environmentally hazardous substance, solid, n.o.s.
	Technical name	Tetraphenylphosphonium phenolate
14.3	Transport hazard class(es)	
	ADR/RID/ADN	9
	IMDG-Code	9
	ICAO-TI	9
14.4	Packing group	
	ADR/RID/ADN	III
	IMDG-Code	III
	ICAO-TI	III
14.5	Environmental hazards	hazardous to the aquatic environment

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.



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14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road information	d, rail and inland waterway (ADR/RID/ADN) - Additional
Classification code	M7
Danger label(s)	9, fish and tree
Environmental hazards	Yes (hazardous to the aquatic environment)
Special provisions (SP)	274, 335, 375, 601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
Transport category (TC)	3
Tunnel restriction code (TRC)	-
Hazard identification No	90
Emergency Action Code	2Z
International Maritime Dangerous Go	oods Code (IMDG) - Additional information
Marine pollutant	Yes (hazardous to the aquatic environment) (Tetraphenylphos- phonium phenolate)
Danger label(s)	9, fish and tree
Special provisions (SP)	274, 335, 966, 967, 969
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
EmS	F-A, S-F
Stowage category	A
International Civil Aviation Organizat	tion (ICAO-IATA/DGR) - Additional information
Environmental hazards	Yes (hazardous to the aquatic environment)
Danger label(s)	9, fish and tree
Special provisions (SP)	A97, A158, A179, A197, A215
Excepted quantities (EQ)	E1
Limited quantities (LQ)	30 kg



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SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Deco-Paint Directive

VOC content	0 %
Industrial Emissions Directive (IED)	
VOC content 0 %	

National inventories

Country	Inventory	Status
CN	IECSC	substance is listed
EU	ECSI	substance is listed
TW	TCSI	substance is listed
Legend	•	

Legend ECSI

EC Substance Inventory (EINECS, ELINCS, NLP)

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-rel- evant
4.1	Following skin contact: Wash with plenty of soap and water.	Following skin contact: Rinse skin with water/shower.	yes
5.2	Special hazards arising from the substance or mixture	Special hazards arising from the substance or mixture: Deposited combustible dust has considerable ex- plosion potential.	yes
6.2	Environmental precautions: Keep away from drains, surface and ground wa- ter. Retain contaminated washing water and dis- pose of it.	Environmental precautions: Keep away from drains, surface and ground wa- ter. Retain contaminated washing water and dis- pose of it. If substance has entered a water course or sewer, inform the responsible authority.	yes
7.1	- Measures to prevent fire as well as aerosol and dust generation: Use local and general ventilation. Use only in well-ventilated areas. Ground/bond container and receiving equipment.	- Measures to prevent fire as well as aerosol and dust generation: Use local and general ventilation. Take precau- tionary measures against static discharge. Use only in well-ventilated areas. Ground/bond con- tainer and receiving equipment.	yes
7.2		- Ventilation requirements: Use local and general ventilation.	yes
7.2		- Packaging compatibilities: Only packagings which are approved (e.g. acc. to ADR) may be used.	yes

IECSC Inventory of Existing Chemical Substances Produced or Imported in China

TCSI Taiwan Chemical Substance Inventory



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Section	Former entry (text/value)	Actual entry (text/value)	Safety-re evant
8.1	Control parameters: This information is not available.	Control parameters	yes
8.1		Occupational exposure limit values (Workplace Ex- posure Limits): change in the listing (table)	yes
8.2	Respiratory protection: In case of inadequate ventilation wear respiratory protection.	Respiratory protection: Particulate filter device (EN 143).	yes
9.2	Solvent content: 100 %		yes
13.1	Waste treatment of containers/packagings: Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.	Waste treatment of containers/packagings: It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.	yes
14.1	UN number or ID number: not subject to transport regulations	UN number or ID number	yes
14.1		ADR/RID/ADN: UN 3077	yes
14.1		IMDG-Code: UN 3077	yes
14.1		ICAO-TI: UN 3077	yes
14.2	UN proper shipping name: not relevant	UN proper shipping name	yes
14.2		ADR/RID/ADN: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	yes
14.2		IMDG-Code: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	yes
14.2		ICAO-TI: Environmentally hazardous substance, solid, n.o.s.	yes
14.2		Technical name: Tetraphenylphosphonium phenolate	yes
14.3	Transport hazard class(es): none	Transport hazard class(es)	yes
14.3		ADR/RID/ADN: 9	yes
14.3		IMDG-Code: 9	yes
14.3		ICAO-TI: 9	yes
14.4	Packing group: not assigned	Packing group	yes
14.4		ADR/RID/ADN: III	yes



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Section	Former entry (text/value)	Actual entry (text/value)	Safety-re evant
14.4		IMDG-Code: III	yes
14.4		ICAO-TI: III	yes
14.5	Environmental hazards: non-environmentally hazardous acc. to the dan- gerous goods regulations	Environmental hazards: hazardous to the aquatic environment	yes
14.6	Special precautions for user: There is no additional information.	Special precautions for user: Provisions for dangerous goods (ADR) should be complied within the premises.	yes
14.7	Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional in- formation: Not subject to ADR, RID and ADN.	Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional in- formation	yes
14.7		Classification code: M7	yes
14.7		Danger label(s): 9, fish and tree	yes
14.7		Danger label(s): change in the listing (table)	yes
14.7		Environmental hazards: yes (hazardous to the aquatic environment)	yes
14.7		Special provisions (SP): 274, 335, 375, 601	yes
14.7		Excepted quantities (EQ): E1	yes
14.7		Limited quantities (LQ): 5 kg	yes
14.7		Transport category (TC): 3	yes
14.7		Tunnel restriction code (TRC): -	yes
14.7		Hazard identification No: 90	yes
14.7		Emergency Action Code: 2Z	yes
14.7	International Maritime Dangerous Goods Code (IMDG) - Additional information: Not subject to IMDG.	International Maritime Dangerous Goods Code (IMDG) - Additional information	yes
14.7		Marine pollutant: yes (hazardous to the aquatic environment) (Tet- raphenylphosphonium phenolate)	yes
14.7		Danger label(s): 9, fish and tree	yes
14.7		Danger label(s): change in the listing (table)	yes
14.7		Special provisions (SP): 274, 335, 966, 967, 969	yes



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Section	Former entry (text/value)	Actual entry (text/value)	Safety-rel- evant
14.7		Excepted quantities (EQ): E1	yes
14.7		Limited quantities (LQ): 5 kg	yes
14.7		EmS: F-A, S-F	yes
14.7		Stowage category: A	yes
14.7	International Civil Aviation Organization (ICAO- IATA/DGR) - Additional information: Not subject to ICAO-IATA.	International Civil Aviation Organization (ICAO- IATA/DGR) - Additional information	yes
14.7		Environmental hazards: yes (hazardous to the aquatic environment)	yes
14.7		Danger label(s): 9, fish and tree	yes
14.7		Danger label(s): change in the listing (table)	yes
14.7		Special provisions (SP): A97, A158, A179, A197, A215	yes
14.7		Excepted quantities (EQ): E1	yes
14.7		Limited quantities (LQ): 30 kg	yes
15.1	VOC content: 100 %	VOC content: 0 %	yes
15.1	VOC content: 100 %	VOC content: 0 %	yes
16		Abbreviations and acronyms: change in the listing (table)	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de naviga- tion intérieures (European Agreement concerning the International Carriage of Dangerous Goods by In- land Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing the International Carriage of Dangerous Goods by Road)
ADR/RID/ADN	Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)



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Abbr.	Descriptions of used abbreviations
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-li- cence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions
ΙΑΤΑ	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.