

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Revision: 13.07.2010

Printing date 13.07.2010

**1 Identification of substance****Product details**

Trade name

**Triallyl phosphite**

Stock number:

17484

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG  
Benzstrasse 3  
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com  
www.alfa-chemcat.com

Informing department:

Product safety department.

Emergency information:

Giftnotruf Universität Mainz / Poison Information Center Mainz  
www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240**2 Hazards identification**

Hazard designation:



T Toxic

Information pertaining to particular dangers for man and environment

R 21 Harmful in contact with skin.  
R 25 Toxic if swallowed.

GHS label elements

**Danger**

H301 - Toxic if swallowed.

**Warning**H312 - Harmful in contact with skin.  
P280 Wear protective gloves/clothing.  
P309 IF exposed or if you feel unwell:  
P310 Immediately call a POISON CENTER or doctor/physician.

Prevention:

Response:

**3 Composition/information on ingredients**

Chemical characterization:

Designation: (CAS#)

Triallyl phosphite (CAS# 102-84-1)

Identification number(s):

EINECS Number:

203-060-8

**4 First aid measures**

General information

Instantly remove any clothing soiled by the product.

After inhalation

In case of irregular breathing or respiratory arrest provide artificial respiration.  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.  
Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.

After swallowing

Rinse opened eye for several minutes under running water. Then consult doctor.  
Do not induce vomiting; instantly call for medical help.

Seek immediate medical advice.

**5 Fire fighting measures**

Suitable extinguishing agents

CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Special hazards caused by the material, its products of combustion or flue gases:

Can be released in case of fire:

Protective equipment:

Phosphorus oxides  
Wear self-contained breathing apparatus.  
Wear full protective suit.**6 Accidental release measures**

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Ensure adequate ventilation

Measures for cleaning/collecting:

Do not allow material to be released to the environment without proper governmental permits.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to item 13.

Additional information:

Ensure adequate ventilation.  
See Section 7 for information on safe handling  
See section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.**7 Handling and storage**

Handling

Information for safe handling:

Handle under dry protective gas.  
Keep containers tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Storage Requirements to be met by storerooms and containers:  
Information about storage in one common storage facility:

No special requirements.

Further information about storage conditions:

Store away from oxidizing agents.  
Store away from air.  
Store away from water.  
Store under dry inert gas.  
This product is moisture sensitive.  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.  
Protect from humidity and keep away from water.  
Store in a locked cabinet or with access restricted to technical experts or their assistants.  
This product is air sensitive.**8 Exposure controls and personal protection**

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with critical values that require monitoring at the workplace:

Not required.

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**Additional information:** No data

**Personal protective equipment  
General protective and hygienic measures** The usual precautionary measures should be adhered to in handling the chemicals.  
Keep away from foodstuffs, beverages and food.  
Instantly remove any soiled and impregnated garments.  
Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes and skin.

**Breathing equipment:** Use breathing protection with high concentrations.

**Eye protection:** Face protection  
Safety glasses

**Body protection:** Protective work clothing.

**9 Physical and chemical properties:****General Information**

**Form:** Liquid  
**Colour:** Colourless  
**Smell:** Strong

**Change in condition**  
**Melting point/Melting range:** Not determined  
**Boiling point/Boiling range:** 84°C (12mm Hg)  
**Sublimation temperature / start:** Not determined

**Flash point:** Not applicable  
Not determined

**Ignition temperature:** Not determined

**Decomposition temperature:** Not determined

**Danger of explosion:** Product is not explosive.

**Critical values for explosion:**  
**Lower:** Not determined  
**Upper:** Not determined

**Steam pressure:** Not determined

**Density:** Not determined

**Solubility in / Miscibility with  
Water:** Not miscible or difficult to mix

**10 Stability and reactivity**

**Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.

**Materials to be avoided:** Oxidizing agents  
Water/moisture  
Air

**Dangerous reactions:** No dangerous reactions known

**Dangerous products of decomposition:** Carbon monoxide and carbon dioxide  
Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>)

**11 Toxicological information****Acute toxicity:****LD/LC50 values that are relevant for classification:**

Oral	LD50	178 mg/kg (rat) (RTECS)
Dermal	LD50	1 mL/kg (rabbit) (RTECS)
Irritation of eyes	mild	50 µL/24H (rabbit) (RTECS)

**Primary irritant effect:****on the skin:** May cause irritation**on the eye:** Causes mild irritant effect.**Sensitization:** No sensitizing effect known.**Additional toxicological information:** To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.  
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.**12 Ecological information:****Additional ecological information:****General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.  
Do not allow material to be released to the environment without proper governmental permits.**13 Disposal considerations****Product:  
Recommendation** Hand over to disposers of hazardous waste.  
Must be specially treated under adherence to official regulations.  
Consult state, local or national regulations for proper disposal.**Uncleaned packagings:  
Recommendation:** Disposal must be made according to official regulations.**14 Transport information****Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**

**ADR/RID-GGVS/E Class:** 6.1 (T1) Toxic substances.

**Kemler Number:** 60

**UN-Number:** 3278

**Packaging group:** III

**Label:** 6.1

**Designation of goods:** 3278 ORGANOPHOSPHORUS COMPOUND, TOXIC, LIQUID, N.O.S. (Triallyl phosphite)

**Limited quantities (LQ):** LQ7

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**Transport category** 2  
**Tunnel restriction code** E

**Maritime transport IMDG/GGVSea:**

**IMDG/GGVSea Class:** 6.1  
**UN Number:** 3278  
**Label** 6.1  
**Packaging group:** III  
**Marine pollutant:** No  
**Correct technical name:** ORGANOPHOSPHORUS COMPOUND, TOXIC, LIQUID, N.O.S. (Triallyl phosphite)

**Air transport ICAO-TI and IATA-DGR:**

**ICAO/IATA Class:** 6.1  
**UN/ID Number:** 3278  
**Label** 6.1  
**Packaging group:** III  
**Correct technical name:** ORGANOPHOSPHORUS COMPOUND, TOXIC, LIQUID, N.O.S. (Triallyl phosphite)

**UN "Model Regulation":** UN3278, ORGANOPHOSPHORUS COMPOUND, TOXIC, LIQUID, N.O.S., 6.1, III

**15 Regulatory information****Designation according to EC guidelines:****Code letter and hazard designation of product:**

T Toxic

**Risk phrases:** 21 Harmful in contact with skin.  
25 Toxic if swallowed.

**Safety phrases:** 36/37 Wear suitable protective clothing and gloves.  
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**National regulations**

**Information about limitation of use:** Employment restrictions concerning young persons must be observed.  
For use only by technically qualified individuals.

**Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**16 Other information:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

**Department issuing data specification sheet:** Health, Safety and Environmental Department.**Contact:** Zachariah Holt

**Abbreviations and acronyms:** ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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