

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 25.08.2010

Revision: 25.08.2010

1 Identification of substance**Product details****Trade name****Dimethyl vinylphosphonate****Stock number:**

L19949

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 environmentR 46 May cause heritable genetic damage.
R 22 Also harmful if swallowed.
R 40 Limited evidence of a carcinogenic effect.**GHS label elements****Warning**

H351 - Suspected of causing cancer.

**Warning**H302 - Harmful if swallowed.
P264 Wash thoroughly after handling.
P281 Use personal protective equipment as required.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.**Prevention:****Response:****Storage:****Disposal:****3 Composition/information on ingredients****Chemical characterization:****Designation: (CAS#)**

Dimethyl vinylphosphonate (CAS# 4645-32-3): 100%

Identification number(s):**EINECS Number:**

225-076-4

4 First aid measures**After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contactSeek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.**After eye contact**

Seek immediate medical advice.

After swallowingRinse opened eye for several minutes under running water. Then consult doctor.
Seek immediate medical advice.**5 Fire fighting measures****Suitable extinguishing agents**CO₂, 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:
Carbon monoxide and carbon dioxide
Phosphorus oxides**Protective equipment:**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:**Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation/exhaustion at the workplace.
Open and handle container with care.**Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Storage**Requirements to be met by storerooms and containers:**

No special requirements.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Further information about storage conditions:Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Store in a locked cabinet or with access restricted to technical experts or their assistants.**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	(Contd. of page 1)
Personal protective equipment	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. Store protective clothing separately. Use breathing protection with high concentrations. Check protective gloves prior to each use for their proper condition. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. Impervious gloves Not determined Safety glasses Protective work clothing.	
General protective and hygienic measures		
Breathing equipment:		
Protection of hands:		
Material of gloves		
Penetration time of glove material		
Eye protection:		
Body protection:		

9 Physical and chemical properties:

General Information		
Form:	Liquid	
Colour:	Colourless	
Smell:	Not determined	
Change in condition		
Melting point/Melting range:	<-30°C	
Boiling point/Boiling range:	54°C (5 mmHg)	
Sublimation temperature / start:	Not determined	
Flash point:	101°C	
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 at 20°C	1.13 g/cm³	
Solubility in / Miscibility with		
Water:	Fully miscible	

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	
Dangerous reactions:	No dangerous reactions known	
Dangerous products of decomposition:	Carbon monoxide and carbon dioxide Phosphorus oxides (e.g. P ₂ O ₅)	

11 Toxicological information

Acute toxicity:		
Primary irritant effect:		
on the skin:	May cause irritation	
on the eye:	May cause irritation	
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 danger class 3 (Self-assessment): extremely hazardous for water. Do not allow product to reach ground water, water bodies or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into soil. 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.	
Recommended cleaning agent:	Water, if necessary with cleaning agent.	

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)		
ADR/RID-GGVS/E Class:	None	
Maritime transport IMDG/GGVSea:		
IMDG/GGVSea Class:	None	
Marine pollutant:	No	
Air transport ICAO-TI and IATA-DGR:		
ICAO/IATA Class:	None	
Transport/Additional information:	Not dangerous according to the above specifications.	

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

T Toxic

Risk phrases:

46 May cause heritable genetic damage.
 22 Also harmful if swallowed.
 40 Limited evidence of a carcinogenic effect.

Safety phrases:

53 Avoid exposure - obtain special instructions before use.
 36/37 Wear suitable protective clothing and gloves.

National regulations**Information about limitation of use:**

For use only by technically qualified individuals.
 Employment restrictions concerning young persons must be observed.

Water hazard class:

Water danger class 3 (Self-assessment): extremely 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)

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