

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 17.08.2010

Revision: 17.08.2010

1 Identification of substance

Product details

Trade name

4,4-Dimethyl-1-phenyl-3-pyrazolidinone

Stock number:

A17279, L08301

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 25 Toxic if swallowed.
R 43 May cause sensitisation by skin contact.

GHS label elements

**Danger**

H300 - Fatal if swallowed.

Warning

H317 - May cause an allergic skin reaction.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P321 Specific treatment (see on this label).

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#)

4,4-Dimethyl-1-phenyl-3-pyrazolidinone (CAS# 2654-58-2)

Identification number(s):

220-018-1

EINECS Number:

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 and call for doctor for safety reasons.

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

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

Nitrogen oxides (NO_x)

Hydrogen cyanide (HCN)

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.

Additional information:

Dispose of contaminated material as waste according to item 13.

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.

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 in the dark.

Store away from oxidizing agents.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Protect from the effects of light.

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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GB

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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. 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 Face protection Protective work clothing.	
General protective and hygienic measures		
Breathing equipment:		
Protection of hands:		
Material of gloves		
Penetration time of glove material	Impervious gloves Not determined Safety glasses Face protection Protective work clothing.	
Eye protection:		
Body protection:		

9 Physical and chemical properties:

General Information	
Form:	Powder
Colour:	White
Smell:	Odourless
Change in condition	167-172°C Not determined Not determined Not determined
Melting point/Melting range:	
Boiling point/Boiling range:	
Sublimation temperature / start:	
Flash point:	195°C
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Danger of explosion:	Product is not explosive.
Critical values for explosion:	Not determined Not determined
Lower:	
Upper:	
Steam pressure:	Not determined
Density	Not determined
Solubility in / Miscibility with	Insoluble
Water:	

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications. Light Oxidizing agents No dangerous reactions known Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Hydrogen cyanide (prussic acid)
Materials to be avoided:	
Dangerous reactions:	
Dangerous products of decomposition:	

11 Toxicological information

Acute toxicity:	May cause irritation May cause irritation Sensitization possible by skin contact. 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. May cause sensitisation by skin contact.
LD/LC50 values that are relevant for classification:	
Oral LD50 30 mg/kg (rat)	
Primary irritant effect:	
on the skin:	May cause irritation May cause irritation Sensitization possible by skin contact. 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. May cause sensitisation by skin contact.
on the eye:	
Sensitization:	
Additional toxicological information:	
Sensitisation	


12 Ecological information:

Additional ecological information:	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.
General notes:	

13 Disposal considerations

Product:	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.
Recommendation	
Uncleaned packagings:	Disposal must be made according to official regulations.
Recommendation:	

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)	
	
ADR/RID-GGVS/E Class:	6.1 (T2) Toxic substances.
Kemler Number:	60
UN-Number:	2811
Packaging group:	II
Label	6.1

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Designation of goods: 2811 TOXIC SOLID, ORGANIC, N.O.S. (4,4-Dimethyl-1-phenyl-3-pyrazolidinone)
Limited quantities (LQ) LQ18
Transport category 2
Tunnel restriction code D/E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 6.1
UN Number: 2811
Label 6.1
Packaging group: II
Marine pollutant: No
Correct technical name: TOXIC SOLID, ORGANIC, N.O.S. (4,4-Dimethyl-1-phenyl-3-pyrazolidinone)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 6.1
UN/ID Number: 2811
Label 6.1
Packaging group: II
Correct technical name: TOXIC SOLID, ORGANIC, N.O.S. (4,4-Dimethyl-1-phenyl-3-pyrazolidinone)

UN "Model Regulation":
 UN2811, TOXIC SOLID, ORGANIC, N.O.S., 6.1, II

15 Regulatory information

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

T Toxic

Risk phrases:

25 Toxic if swallowed.
 43 May cause sensitisation by skin contact.

Safety phrases:

24 Avoid contact with skin.
 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