

Safety data sheet

according to 1907/2006/EC, Article 31

Revision: 26.03.2012

Printing date 02.07.2013

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name

Paraformaldehyde

Stock number:

A11313

CAS Number:

30525-89-4

1.2 Relevant identified uses of the substance or mixture and uses advised against.

Identified use:

No further relevant information available.
SU24 Scientific research and development

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
A Johnson Matthey Company
Zeppelinstr. 7b
76185 Karlsruhe / Germany
Tel: +49 (0) 721 84007 280
Fax: +49 (0) 721 84007 300
Email: tech@alfa.com
www.alfa.com
Product safety Tel + +049 (0) 7275 988687-0
Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)
Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

Informing department:

1.4 Emergency telephone number:

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Sol. 2 H228 Flammable solid.



GHS08 health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

C; Corrosive

R34: Causes burns.

Xn; Harmful

R20/22-40: Harmful by inhalation and if swallowed. Limited evidence of a carcinogenic effect.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

F; Highly flammable

R11: Highly flammable.

Information concerning particular hazards for human and environment:

Other hazards that do not result in classification

Not applicable

No information known.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Hazard statements

The substance is classified and labelled according to the CLP regulation.

GHS02, GHS05, GHS07, GHS08

Danger

H228 Flammable solid.

H302 Harmful if swallowed.

H332 Harmful if inhaled.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405

Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Substances

CAS# Designation:

30525-89-4 Paraformaldehyde

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

After inhalation

Instantly remove any clothing soiled by the product.

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

Seek immediate medical advice.

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After skin contact After eye contact After swallowing 4.2 Most important symptoms and effects, both acute and delayed 4.3 Indication of any immediate medical attention and special treatment needed	Instantly wash with water and soap and rinse thoroughly. Seek immediate medical advice. Rinse opened eye for several minutes under running water. Then consult doctor. Seek medical treatment. No further relevant information available. No further relevant information available.
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SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing agents 5.2 Special hazards arising from the substance or mixture 5.3 Advice for firefighters Protective equipment:	CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam. If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide Formaldehyde Wear self-contained breathing apparatus. Wear full protective suit.
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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures 6.2 Environmental precautions: 6.3 Methods and material for containment and cleaning up: Prevention of secondary hazards: 6.4 Reference to other sections	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Keep away from ignition sources Do not allow material to be released to the environment without proper governmental permits. Do not allow product to reach sewage system or water bodies. Do not allow to enter the ground/soil. Keep away from ignition sources. Use neutralizing agent. Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation. Keep away from ignition sources. See Section 7 for information on safe handling See section 8 for information on personal protection equipment. See Section 13 for information on disposal.
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SECTION 7: Handling and storage

7.1 Precautions for safe handling Information about protection against explosions and fires: 7.2 Conditions for safe storage, including any incompatibilities Storage Requirements to be met by storerooms and containers: Information about storage in one common storage facility: Further information about storage conditions: 7.3 Specific end use(s)	Keep containers tightly sealed. Ensure good ventilation/exhaustion at the workplace. Protect against electrostatic charges. Keep ignition sources away - Do not smoke. Refrigerate Protect from heat. Do not store together with acids. Store away from strong bases. Store away from oxidizing agents. Keep container tightly sealed. Store in a locked cabinet or with access restricted to technical experts or their assistants. Refrigerate No further relevant information available.
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SECTION 8: Exposure controls/personal protection

Additional information about design of technical systems: 8.1 Control parameters Components with critical values that require monitoring at the workplace: Additional information: 8.2 Exposure controls Personal protective equipment General protective and hygienic measures Breathing equipment: Protection of hands: Material of gloves Penetration time of glove material Eye protection: Body protection:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute. The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. No data 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. Maintain an ergonomically appropriate working environment. 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 Tightly sealed safety glasses. Full face protection Protective work clothing.
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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance:	
Form:	Powder
Colour:	White

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Smell:	Pungent
Odour threshold:	Not determined.
pH-value:	Not applicable.
Change in condition	
Melting point/Melting range:	120-170 °C (dec)
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined
Flash point:	71 °C
Inflammability (solid, gaseous)	Highly flammable.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Self-inflammability:	Not determined.
Critical values for explosion:	
Lower:	Not determined
Upper:	Not determined
Steam pressure:	Not applicable.
Density at 20 °C	1,3 g/cm ³
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
Water:	Soluble in hot water
Partition coefficient (n-octanol/water):	Not determined.
Viscosity:	
dynamic:	Not applicable.
kinematic:	Not applicable.
9.2 Other information	No further relevant information available.
SECTION 10: Stability and reactivity	
10.1 Reactivity	No information known.
10.2 Chemical stability	Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
10.3 Possibility of hazardous reactions	Reacts with strong oxidizing agents
10.5 Incompatible materials:	Acids Bases Oxidizing agents Heat
10.6 Hazardous decomposition products:	Carbon monoxide and carbon dioxide Formaldehyde
SECTION 11: Toxicological information	
11.1 Information on toxicological effects	
Acute toxicity:	Harmful if inhaled. Harmful if swallowed. Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach. The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.
LD/LC50 values that are relevant for classification:	
Oral	LD50 800 mg/kg (rat)
Inhalative	LC50/4H 1,07 mg/l/4H (rat)
Skin irritation or corrosion:	Causes severe skin burns.
Eye irritation or corrosion:	Causes serious eye damage.
Sensitization:	May cause an allergic skin reaction.
Germ cell mutagenicity:	The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for components in this product.
Carcinogenicity:	Suspected of causing cancer.
Reproductive toxicity:	No effects known.
Specific target organ system toxicity - repeated exposure:	No effects known.
Specific target organ system toxicity - single exposure:	No effects known.
Aspiration hazard:	No effects known.
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
SECTION 12: Ecological information	
12.1 Toxicity	
Aquatic toxicity:	No further relevant information available.
12.2 Persistence and degradability	No further relevant information available.
12.3 Bioaccumulative potential	No further relevant information available.
12.4 Mobility in soil	No further relevant information available.
Additional ecological information:	
General notes:	Do not allow material to be released to the environment without proper governmental permits. 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. Avoid transfer into the environment.
12.5 Results of PBT and vPvB assessment	
PBT:	Not applicable.
vPvB:	Not applicable.
12.6 Other adverse effects	No further relevant information available.
SECTION 13: Disposal considerations	
13.1 Waste treatment methods	
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.

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SECTION 14: Transport information

UN-Number ADR, IMDG, IATA	UN2213
14.2 UN proper shipping name ADR IMDG, IATA	2213 PARAFORMALDEHYDE PARAFORMALDEHYDE
14.3 Transport hazard class(es) ADR	
	
Class	4.1 (F1) Flammable solids, self-reactive substances and solid desensitised explosives.
Label IMDG, IATA	4.1
	
Class	4.1 Flammable solids, self-reactive substances and solid desensitised explosives.
Label	4.1
Packing group ADR, IMDG, IATA	III
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Warning: Flammable solids, self-reactive substances and solid desensitised explosives.
Kemler Number:	40
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
ADR	
Excepted quantities (EQ):	E1
Limited quantities (LQ)	LQ9
Transport category	3
Tunnel restriction code	E
UN "Model Regulation":	UN2213, PARAFORMALDEHYDE, 4.1, III

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Australian Inventory of Chemical Substances Substance is listed.

Standard for the Uniform Scheduling of Drugs and Poisons

30525-89-4 Paraformaldehyde

S2 +APPEN

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.

Other regulations, limitations and prohibitive regulations**ELINCS (European List of Notified Chemical Substances)**

Substance is not listed.

Substances of very high concern (SVHC)**according to REACH, Article 57**

Substance is not listed.

REACH - Pre-registered substances

Substance is listed.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 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.

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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