

Safety data sheet
according to UK REACH

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Version number 3.03 (replaces version 3.02)

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

- **1.1 Product identifier**
 - **Trade name:** Paraformaldehyde tablets of~ 1g
 - **Article number:** 211511
 - **Application of the substance / the mixture** Laboratory chemicals
 - **Uses advised against**
 - Disinfectant
 - Fungicide
 - **1.3 Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
 - AppliChem GmbH
 - Ottoweg 4
 - D-64291 Darmstadt
 - **Further information obtainable from:** Dept. Compliance
 - **1.4 Emergency telephone number:** +49(0)6151 93570 (Mo-Th 08:00 - 17:00 h; Fr 08:00 - 14:30 h)
- Tel.: +49 (0)6151 93570
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SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
 - Flam. Sol. 2 H228 Flammable solid.
 - Acute Tox. 4 H302 Harmful if swallowed.
 - Skin Irrit. 2 H315 Causes skin irritation.
 - Eye Irrit. 2 H319 Causes serious eye irritation.
 - Skin Sens. 1 H317 May cause an allergic skin reaction.
 - Carc. 2 H351 Suspected of causing cancer.
 - STOT SE 3 H335 May cause respiratory irritation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

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· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** Warning

· **Hazard-determining components of labelling:**

paraformaldehyde

· **Hazard statements**

H228 Flammable solid.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H335 May cause respiratory irritation.

· **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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

· **3.2 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

30525-89-4	paraformaldehyde	>50-<100%
	Flam. Sol. 2, H228; Carc. 2, H351; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Involve doctor immediately.

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- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- **After skin contact:**
Call a doctor immediately.
Immediately wash with water and soap and rinse thoroughly.
Immediately remove any clothing soiled by the product.
- **After eye contact:** Call a doctor immediately.
- **After swallowing:**
make victim drink water (maximum of 2 drinking glasses)
Subsequently administer:
activated charcoal (20 - 40 g in 10 % slurry)
Call a doctor immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide
Non-combustible.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Avoid formation of dust.
Wear protective equipment. Keep unprotected persons away.
Avoid substance contact.
Ensure adequate ventilation
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Pick up mechanically.
Avoid formation of dust.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
Clean up affected area.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Any unavoidable deposit of dust must be regularly removed.
- **Information about fire - and explosion protection:**
 - Keep ignition sources away - Do not smoke.
 - Protect from heat.
 - Protect against electrostatic charges.
 - The product is not flammable.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
 - Keep container tightly sealed.
 - Store in cool, dry conditions in well sealed receptacles.
 - Protect from heat and direct sunlight.
 - Open receptacle only under localised extractor facilities.
 - Store under lock and key and with access restricted to technical experts or their assistants only.
- **Recommended storage temperature:** Room Temperature
- **Storage class:** 4.1 B
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
 - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing
 - Wash hands before breaks and at the end of work.
 - Vacuum clean contaminated clothing. Do not blow or brush off contamination.
 - Avoid contact with the eyes and skin.
- **Respiratory protection:**
 - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
 - Required when dusts are generated.
- **Recommended filter device for short term use:** Combination filter B-P2
- **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **For the permanent contact gloves made of the following materials are suitable:**

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

Value for the permeation: Level ≥ 480 min

· **As protection from splashes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

Value for the permeation: Level ≥ 480 min

· **Eye/face protection**



Tightly sealed goggles

· **Body protection:** Use protective suit.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Physical state**

Solid

· **Colour:**

White

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

100-130 °C

· **Boiling point or initial boiling point and boiling range**

Undetermined.

· **Flammability**

Highly flammable.

· **Lower and upper explosion limit**

· **Lower:**

7 Vol %

· **Upper:**

73 Vol %

· **Flash point:**

Not applicable.

· **Decomposition temperature:**

Not determined.

· **pH**

Mixture is non-soluble (in water).

· **Viscosity:**

· **Kinematic viscosity**

Not applicable.

· **Dynamic:**

Not applicable.

· **Solubility**

· **water:**

Insoluble.

· **Partition coefficient n-octanol/water (log value)**

Not determined.

· **Vapour pressure:**

Not applicable.

· **Density and/or relative density**

· **Density:**

Not determined.

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· Relative density	Not determined.
· Vapour density	Not applicable.
· 9.2 Other information	
· Appearance:	
· Form:	Solid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Not determined.
· Solvent content:	
· Solids content:	100.0 %
· Change in condition	
· Evaporation rate	Not applicable.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Flammable solid.
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Heating
- **10.3 Possibility of hazardous reactions**
Reacts with amines.
Reacts with acids, alkalis and oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
nickel
copper
zinc
- **10.6 Hazardous decomposition products:** In the event of fire: See chapter 5

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SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Harmful if swallowed.
- **LD/LC50 values relevant for classification:**
Quantitative data on the toxicological effect of this product are not available.

Components	Type	Value	Species
ATE (Acute Toxicity Estimates)			
Oral	LD50	603 mg/kg (rat)	

30525-89-4 paraformaldehyde

Oral	LD50	592 mg/kg (rat)	
Dermal	LD50	10,000 mg/kg (rabbit)	

- **Primary irritant effect:**
- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **After inhalation:** Irritant to skin and mucous membranes.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **Carcinogenicity** Suspected of causing cancer.
- **STOT-single exposure** May cause respiratory irritation.

11.2 Information on other hazards

· Endocrine disrupting properties
None of the ingredients is listed.

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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Chemicals must be disposed of in compliance with the respective national regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packaging:**
- **Recommendation:**
Disposal must be made according to official regulations.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14: Transport information

· 14.1 UN number or ID number	
· ADR, IMDG, IATA	UN2213
· 14.2 UN proper shipping name	
· ADR, IMDG, IATA	PARAFORMALDEHYDE mixture
· 14.3 Transport hazard class(es)	
· ADR	
	
· Class	4.1 (F1) Flammable solids, self-reactive substances, polymerizing substances and solid desensitized explosives
· Label	4.1
· IMDG, IATA	
	
· Class	4.1 Flammable solids, self-reactive substances, polymerizing substances and solid desensitized explosives
· Label	4.1
· 14.4 Packing group	
· ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Warning: Flammable solids, self-reactive substances, polymerizing substances and solid desensitized explosives
· Hazard identification number (Kemler code):	40
· EMS Number:	F-A,S-G
· Stowage Category	A
· Stowage Code	SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.

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· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

5 kg

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **Transport category**

3

· **Tunnel restriction code**

E

· **IMDG**

· **Limited quantities (LQ)**

5 kg

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **UN "Model Regulation":**

UN 2213 PARAFORMALDEHYDE MIXTURE, 4.1, III

SECTION 15: Regulatory information

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

· **Poisons Act**

· **Regulated explosives precursors**

None of the ingredients is listed.

· **Regulated poisons**

None of the ingredients is listed.

· **Reportable explosives precursors**

None of the ingredients is listed.

· **Reportable poisons**

None of the ingredients is listed.

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H228 Flammable solid.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

· **Department issuing SDS:** Dept. Compliance

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

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IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Flam. Sol. 2: Flammable solids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· *** Data compared to the previous version altered.**

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