



SAFETY DATA SHEET

Paraformaldehyde, pure

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name: Paraformaldehyde, pure
Product no.: PFH0456

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

Relevant identified uses of the substance or mixture: Laboratory use, Industrial purposes
Uses advised against: None known.

1.3. Details of the supplier of the safety data sheet

Company and address: **Laboratoriumdiscounter**
Zandvoortstraat 75
1976BN IJmuiden
Netherlands
Tel: +31 255 700 210
www.laboratoriumdiscounter.nl/en/
E-mail: info@laboratoriumdiscounter.nl
Revision: 20/02/2023
SDS Version: 1.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).
See section 4 "First aid measures".

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Flam. Sol. 1; H228, Flammable solid.
Acute Tox. 4; H302, Harmful if swallowed.
Skin Irrit. 2; H315, Causes skin irritation.
Skin Sens. 1; H317, May cause an allergic skin reaction.
Eye Dam. 1; H318, Causes serious eye damage.
Acute Tox. 4; H332, Harmful if inhaled.
Resp. Sens. 1; H334, May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT SE 3; H335, May cause respiratory irritation.
Muta. 2; H341, Suspected of causing genetic defects.
Carc. 1A; H350, May cause cancer.

2.2. Label elements

Hazard pictogram(s):





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<i>Signal word:</i>	Danger
<i>Hazard statement(s):</i>	Flammable solid. (H228) Harmful if swallowed or if inhaled. (H302+H332) Causes skin irritation. (H315) May cause an allergic skin reaction. (H317) Causes serious eye damage. (H318) May cause allergy or asthma symptoms or breathing difficulties if inhaled. (H334) May cause respiratory irritation. (H335) Suspected of causing genetic defects. (H341) May cause cancer. (H350)
<i>Safety statement(s):</i>	
<i>General:</i>	If medical advice is needed, have product container or label at hand. (P101) Keep out of reach of children. (P102)
<i>Prevention:</i>	Obtain special instructions before use. (P201) Wear eye protection/protective gloves/protective clothing. (P280)
<i>Response:</i>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338) IF exposed or concerned: Get medical advice/attention. (P308+P313)
<i>Storage:</i>	Store locked up. (P405)
<i>Disposal:</i>	Dispose of contents/container in accordance with local regulation. (P501)
<i>Hazardous substances:</i>	Paraformaldehyde
<i>Additional labelling:</i>	Restricted to professional users.
2.3. Other hazards	
<i>Additional warnings:</i>	Dust from flammable solids can be explosive, even if they are not hazardous substances. This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures



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Product/substance	Identifiers	% w/w	Classification	Note
Paraformaldehyde	CAS No.: 30525-89-4 EC No.: 608-494-5 UK-REACH: Index No.:	91-93%	Flam. Sol. 2, H228 Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Dam. 1, H318 Acute Tox. 4, H332 Resp. Sens. 1, H334 STOT SE 3, H335 Muta. 2, H341 Carc. 1A, H350	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

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SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information:

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet.

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation:

Upon breathing difficulties or irritation of the respiratory tract: Bring the injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

Skin contact:

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact:

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and

*Ingestion:*

continue flushing during transport.

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit returning mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns:

Rinse with water until pain stops then continue to rinse for 30 minutes.

4.2. Most important symptoms and effects, both acute and delayed

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics:

Bring this safety data sheet or the label from this product.

SECTION 5: FIREFIGHTING MEASURES**5.1. Extinguishing media**

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

Hazchem Code: 1Z

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.



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6.3. Methods and material for containment and cleaning up

Cleaning up the material must be done only with squeegees or soft natural bristle brushes. Scoops used to pick up the material must be conductive and non-sparking. Synthetic bristle brushes and plastic or other non-conductive scoops must not be used, since they tend to accumulate strong static charges.

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Minor spills are collected with a cloth. Collection and disposal of the material shall be done with minimum creation of dust. Sweep and collect. Shall be contained in suitable and tightly closed disposal containers.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Keep all containers sealed except when opened for removal of material. Reseal containers immediately after each use to prevent contamination or, in the case of pastes, loss of solvent. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Keep all containers sealed except when opened for removal of material. Reseal containers immediately after each use to prevent contamination or, in the case of pastes, loss of solvent. The use of an inert gas to replace air can greatly increase the safety of many operations, particularly where it may be impossible to ensure that all sources of ignition are eliminated. Powder trickling out onto the floor or onto other containers must be prevented.

Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Recommended storage material:

Keep only in original packaging.

Storage temperature:

Room temperature 15 to 25°C

Incompatible materials:

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No substances are listed in the national list of substances with an occupational exposure limit.

DNEL

No data available.

PNEC

No data available.

8.2. Exposure controls



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Control is unnecessary if the product is used as intended.

General recommendations:

When transferring the materials, dust clouds should be kept at an absolute minimum. Handling should be slow and deliberate. The materials should be transferred from one container to another using a non-sparking, conductive metal scoop. When mixing the material with other dry ingredients, frictional heat should be avoided. The best type of mixer for a dry mixing operation is one that contains no moving parts, but rather affects a tumbling action, such as a conical blender. Introduction of an inert atmosphere in the blender is highly recommended since dust clouds are generated. All equipment must be well grounded. Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios:

There are no exposure scenarios implemented for this product.

Exposure limits:

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures:

Do not recirculate outlet air that contain the substances.

Hygiene measures:

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure:


Keep damming materials near the workplace. If possible, collect spillage during work.

8.3. Individual protection measures, such as personal protective equipment


Generally:

Work clothing should be made of smooth, closely woven fire resistant/fire retardant fabrics which tend not to accumulate static electric charges. Trousers should have no cuffs where the material might accumulate. Pockets, if present, should be designed in such a way as to eliminate the accumulation of dust. Use only UKCA marked protective equipment.

Respiratory Equipment:

Type	Class	Colour	Standards	
S/SL	P2	White	EN149	


Skin protection:

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	




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Hand protection:

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0,2	> 480	EN374-2, EN374-3, EN388	

Eye protection:

Type	Standards	
Safety glasses with side shields.	EN166	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<i>Physical state:</i>	Solid
<i>Colour:</i>	White
<i>Odour / Odour threshold:</i>	Aldehyd
<i>pH:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Density (g/cm³):</i>	1,3 g /cm ³ (20 °C)
<i>Kinematic viscosity:</i>	Does not apply to solids.
<i>Particle characteristics:</i>	Testing not relevant or not possible due to the nature of the product.

Phase changes

<i>Melting point/Freezing point (°C):</i>	120 – 170 °
<i>Softening point/range (waxes and pastes) (°C):</i>	Does not apply to solids.
<i>Boiling point (°C):</i>	No data available
<i>Vapour pressure:</i>	1,5 – 2 hPa (20 °C)
<i>Relative vapour density:</i>	Does not apply to solids.
<i>Decomposition temperature (°C):</i>	Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards

<i>Flash point (°C):</i>	71
<i>Flammability (°C):</i>	The material is ignitable.
<i>Auto-ignition temperature (°C):</i>	Testing not relevant or not possible due to the nature of the product.
<i>Lower and upper explosion limit (% v/v):</i>	7 - 73

Solubility

<i>Solubility in water:</i>	Very slightly soluble
<i>n-octanol/water coefficient:</i>	Testing not relevant or not possible due to the nature of the product.



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Solubility in fat (g/L):

Testing not relevant or not possible due to the nature of the product.

9.2. Other information

Other physical and chemical parameters:

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Avoid static electricity.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Harmful if swallowed.

Harmful if inhaled.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Suspected of causing genetic defects.

Carcinogenicity

May cause cancer.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

Based on available data, the classification criteria are not met.



Compiled in accordance with REACH Regulation (EC) No 1907/2006, as retained and amended in UK law

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Long term effects

Carcinogenic effects: This product contains substances considered or proven to be carcinogenic. The carcinogenic effects may be triggered subsequent to exposure through inhalation, skin contact or ingestion.

The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.

Endocrine disrupting properties

Not applicable.

Other information

None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

No data available.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

Not applicable.

12.7. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 3 - Flammable

HP 4 - Irritant (skin irritation and eye damage)

HP 5 - Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

HP 6 - Acute toxicity

HP 7 - Carcinogenic

HP 11 - Mutagenic

HP 13 - Sensitising

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code



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Not applicable.




Specific labelling

Not applicable.

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: TRANSPORT INFORMATION

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	UN2213	PARAFORMALDEH YDE	Class: 4.1 Labels: 4.1 Classification code: F1 	III	No	Limited quantities: 5 kg Tunnel restriction code: (E) See below for additional information.
IMDG	UN2213	PARAFORMALDEH YDE	Class: 4.1 Labels: 4.1 Classification code: F1 	III	No	Limited quantities: 5 kg EmS: F-A S-G See below for additional information.
IATA	UN2213	PARAFORMALDEH YDE	Class: 4.1 Labels: 4.1 Classification code: F1 	III	No	See below for additional information.

* Packing group

** Environmental hazards

Additional information

ADR / See Table A, Section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

Hazchem Code: 1Z

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.



SECTION 15: REGULATORY INFORMATION

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

Restrictions for application:

Restricted to professional users.
People under the age of 18 shall not be exposed to this product.
Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education:

No specific requirements.

SEVESO - Categories / dangerous substances:

Not applicable.

Additional information:

Tactile warning.

Sources:

The Management of Health and Safety at Work Regulations 1999.
The Health and Safety at Work etc. Act 1974
Regulations 2013.
Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.
Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.
Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: OTHER INFORMATION

Full text of H-phrases as mentioned in section 3

H228, Flammable solid.
H302, Harmful if swallowed.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H318, Causes serious eye damage.
H332, Harmful if inhaled.
H334, May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335, May cause respiratory irritation.
H341, Suspected of causing genetic defects.
H350, May cause cancer.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by



Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard to health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The classification of the mixture in regard to physical hazards has been based on experimental data.

The safety data sheet is validated by

Laboratoriumdiscounter

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.



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Country-language: GB-en