

### SECTION 1: Identification

#### 1.1. Identification

Product form	: Substance
Trade name	: Paraformaldehyde
Chemical name	:
CAS-No.	: 30525-89-4
Product code	: 00380
Formula	: (CH <sub>2</sub> O) <sub>x</sub>

#### 1.2. Recommended use and restrictions on use

Recommended use	: Use as laboratory reagent, Manufacture of substances
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#### 1.3. Supplier

##### Supplier

Polysciences  
400 Valley Road  
Warrington, PA 18976 - United States  
T +1 215 343 6484 - F +1 215 343 0214  
[info@polysciences.com](mailto:info@polysciences.com) - [www.polysciences.com](http://www.polysciences.com)

#### 1.4. Emergency telephone number

Emergency number	: 24-hour emergency phone number ChemTel 1-800-255-3924
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### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Flammable solids Category 2	Flammable solid
Acute toxicity (oral) Category 4	Harmful if swallowed
Skin corrosion/irritation Category 2	Causes skin irritation
Serious eye damage/eye irritation Category 2A	Causes serious eye irritation
Carcinogenicity Category 2	Suspected of causing cancer
Specific target organ toxicity (single exposure) Category 1	Causes damage to organs
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	May cause respiratory irritation
Hazardous to the aquatic environment – Acute Hazard Category 3	Harmful to aquatic life
Hazardous to the aquatic environment – Chronic Hazard Category 3	Harmful to aquatic life with long lasting effects

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: Flammable solid  
Harmful if swallowed  
Causes skin irritation  
Causes serious eye irritation  
May cause respiratory irritation  
Suspected of causing cancer  
Causes damage to organs  
Harmful to aquatic life  
Harmful to aquatic life with long lasting effects

Precautionary statements (GHS US)

: Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

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Ground/Bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting equipment.  
Do not breathe dust/fume/gas/mist/vapors/spray.

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Name : Paraformaldehyde

CAS-No. : 30525-89-4

Name	Product identifier	%	GHS US classification
Paraformaldehyde	(CAS-No.) 30525-89-4	99 – 100	Flam. Sol. 2, H228 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 1, H370 STOT SE 3, H335 Aquatic Chronic 3, H412

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures general : IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : Irritation.
- Symptoms/effects after eye contact : Eye irritation.

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam.

### 5.2. Specific hazards arising from the chemical

- Fire hazard : Flammable solid.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.  
Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.  
Storage conditions : Store at room temp. Keep cool. Do not store in direct sunlight. Keep away from ignition sources. Store locked up. Store in a well-ventilated place. Keep container tightly closed.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Paraformaldehyde (30525-89-4)

No additional information available

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No additional information available

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures/Personal protective equipment

##### Hand protection:

Protective gloves

##### Eye protection:

Safety glasses

##### Skin and body protection:

Wear suitable protective clothing

##### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Color	: Colorless
Odor	: Mixture contains one or more component(s) which have the following odour:
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Flammable solid.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Flammable solid.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
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Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

Paraformaldehyde (30525-89-4)	
LD50 oral rat	800 mg/kg
LC50 Inhalation - Rat	1070 mg/l/4h
ATE US (oral)	800 mg/kg body weight
ATE US (vapors)	1070 mg/l/4h
ATE US (dust, mist)	1070 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.  
Serious eye damage/irritation : Causes serious eye irritation.  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Suspected of causing cancer.  
Reproductive toxicity : Not classified  
STOT-single exposure : Causes damage to organs. May cause respiratory irritation.

Paraformaldehyde (30525-89-4)	
STOT-single exposure	Causes damage to organs. May cause respiratory irritation.

STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified  
Viscosity, kinematic : No data available  
Symptoms/effects after inhalation : May cause respiratory irritation.  
Symptoms/effects after skin contact : Irritation.  
Symptoms/effects after eye contact : Eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Paraformaldehyde (30525-89-4)	
LC50 fish 1	60 mg/l

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN2213 Paraformaldehyde, 4.1, III

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UN-No.(DOT)	: UN2213
Proper Shipping Name (DOT)	: Paraformaldehyde
Class (DOT)	: 4.1 - Class 4.1 - Flammable Solid 49 CFR 173.124
Packing group (DOT)	: III - Minor Danger
Hazard labels (DOT)	: 4.1 - Flammable solid



DOT Packaging Non Bulk (49 CFR 173.xxx)	: 213
DOT Packaging Bulk (49 CFR 173.xxx)	: 240
DOT Special Provisions (49 CFR 172.102)	: A1 - Single packaging are not permitted on passenger aircraft. B120 - The use of flexible bulk containers conforming to the requirements in subpart R and subpart S of part 178 of this subchapter is permitted. IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner. T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 151
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 25 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 100 kg
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Emergency Response Guide (ERG) Number	: 133
Other information	: No supplementary information available.

### Transportation of Dangerous Goods

Not applicable

### Transport by sea

Transport document description (IMDG)	: UN 2213 PARAFORMALDEHYDE, 4.1, III
UN-No. (IMDG)	: 2213
Proper Shipping Name (IMDG)	: PARAFORMALDEHYDE
Class (IMDG)	: 4.1 - Flammable solids, self-reactive substances and solid desensitized explosives
Packing group (IMDG)	: III - substances presenting low danger
Limited quantities (IMDG)	: 5 kg

### Air transport

Transport document description (IATA)	: UN 2213 Paraformaldehyde, 4.1, III
UN-No. (IATA)	: 2213
Proper Shipping Name (IATA)	: Paraformaldehyde
Class (IATA)	: 4.1 - Flammable Solids; Self-Reactive Substances; Polymerizing Substances; and Solid Desensitized Explosives

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Packing group (IATA)

: III - Low danger

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### Paraformaldehyde (30525-89-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ	1000 lb
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##### Paraformaldehyde (30525-89-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ	1000 lb
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#### 15.2. International regulations

##### CANADA

##### Paraformaldehyde (30525-89-4)

Listed on the Canadian DSL (Domestic Substances List)

##### Paraformaldehyde (30525-89-4)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

##### National regulations

No additional information available

#### 15.3. US State regulations

##### Paraformaldehyde (30525-89-4)

State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
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California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Paraformaldehyde(30525-89-4)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

### SECTION 16: Other information

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SDS US (GHS HazCom 2012)

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