



Safety Data Sheet

according to Globally Harmonized System (GHS)

Printing date 2019-04-08

Revision: 2019-04-08

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

- **Product identifier**
- **Trade name:** Paraformaldehyde
- **Applicable Models:** PR86, PR88, PR91, PR92
- **Synonyms:** PARA, Paraform
- **Relevant identified uses of the substance or mixture and uses advised against :**
- **Identified/Recommended uses:**
 - Synthetic resin
 - Textile auxiliary
 - Chemical for synthesis
 - Disinfectant
 - Anti-freezer
 - Adhesives
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 - Chang Chun Plastics Co. Ltd.
 - 7th Fl., No. 301, SongJiang Rd.
 - Taipei City, 10483, TAIWAN
 - Tel: +886-2-2500-1800 Fax:+886-2-2501-8018
 - WWW.CCP.COM.TW
- NZ Supplier: Chemiplas NZ Ltd
137 Great North Road
Grey Lynn,
Auckland 1021
New Zealand
Tel + 64 9 361 4060
24 Hour Emergency Tel + 64 9 361 4061
- **Further information obtainable from:** SDS-info@ccp.com.tw
- **Emergency telephone number:** During normal opening times: +886 2 2500 - 1800 (8:30-17:30; GMT+8)

2 Hazards identification

Classification of the substance or mixture:	<u>HSNO Classification</u>
Flam. Sol. 2 H228 Flammable solid.	4.1.1B
Skin Irrit. 2 H315 Causes skin irritation.	6.3A
Eye Irrit. 2A H319 Causes serious eye irritation.	6.4A
STOT SE 1 H370 Causes damage to organs.	6.9A
STOT SE 3 H335 May cause respiratory irritation.	6.1E
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.	9.1C

- **Label elements:**
- **Hazard pictograms:**



GHS02 GHS07 GHS08

- **Signal word:** Danger
- **Hazard-determining components of labelling:** Paraformaldehyde
- **Hazard statements:**
 - Flammable solid.
 - Causes skin irritation.
 - Causes serious eye irritation.
 - Causes damage to organs.
 - May cause respiratory irritation.
 - Harmful to aquatic life with long lasting effects.
- **Precautionary statements:**
 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - Do not breathe dust/fume/gas/mist/vapours/spray.

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

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

Store locked up.

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

3 Composition/information on ingredients

- **Chemical characterisation: Mixtures**
- **Description:** Mixture: consisting of the following components.

· **Dangerous Components:**

30525-89-4	Paraformaldehyde Flam. Sol. 2, H228; STOT SE 1, H370; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335; Aquatic Chronic 3, H412	86-95%
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· **Non-Hazardous Component(s):**

7732-18-5	water	5-14%
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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

- **Description of first aid measures**
- **General information:**
 - Immediately remove any clothing soiled by the product.
 - Take affected persons out into the fresh air.
 - Provide oxygen treatment if affected person has difficulty breathing.
- **After inhalation:**
 - Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
 - In case of unconsciousness place patient stably in side position for transportation.
 - Seek medical treatment.
- **After skin contact:**
 - Take off immediately all contaminated clothing.
 - Immediately wash with water and soap and rinse thoroughly.
 - Take off contaminated clothing.
 - Seek immediate medical advice.
- **After eye contact:**
 - Rinse opened eye for several minutes under running water. Then consult a doctor.
 - Protect unharmed eye.
- **After swallowing:**
 - Do not induce vomiting; call for medical help immediately.
 - Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **Most important symptoms and effects, both acute and delayed:**
 - Breathing difficulty
 - Allergic reactions
 - Irritant effects
 - Coughing
 - Nausea
 - Vomiting
- **Indication of any immediate medical attention and special treatment needed**
 - If necessary oxygen respiration treatment.
 - Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
 - Water haze
 - Alcohol resistant foam
 - Carbon dioxide
 - Fire-extinguishing powder
- **Special hazards arising from the substance or mixture**
 - Formation of toxic gases is possible during heating or in case of fire.
 - Formaldehyde
 - Can form explosive gas-air mixtures.
- **Advice for firefighters** Use water spray to cool unopened containers.
- **Protective equipment:**
 - Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves).

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - Ensure adequate ventilation
 - Wear protective equipment. Keep unprotected persons away.
 - Keep away from ignition sources.
 - Avoid formation of dust.
 - Use respiratory protective device against the effects of fumes/dust/aerosol.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
 - Keep away from water.
 - Sweep and shovel.
 - Avoid formation of dust.
- **Reference to other sections**
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
 - Ensure good ventilation/exhaustion at the workplace.
 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - Wear protective gloves/protective clothing/eye protection/face protection.
 - Prevent formation of dust.
- **Information about fire - and explosion protection:**
 - Protect from heat.
 - Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Store in cool, dry place in tightly closed receptacles.
- **Further information about storage conditions:**
 - Protect from heat and direct sunlight.
 - Store receptacle in a well ventilated area.

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8 Exposure controls/personal protection

- **Additional information about design of technical facilities:**

Local exhaust ventilation may be necessary for some operations.

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

- **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.

- **Ingredients with biological limit values:**

The product does not contain any relevant quantities of materials with biological limited values that have to be monitored.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Wash hands before breaks and at the end of work.

Be sure to clean skin thoroughly after work and before breaks.

Ensure that washing facilities are available at the work place.

Immediately remove all soiled and contaminated clothing

Avoid contact with the eyes and skin.

Storing food in the working area is prohibited.

- **Respiratory protection:** Suitable respiratory protective device recommended.

- **Protection of hands:**

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

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

Chemical-resistant glove conforming to EN374 Class 1 is recommended.

- **Material of gloves**

Synthetic rubber gloves

Butyl rubber, BR

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

- **Penetration time of glove material** Break through time: > 30 min

- **Eye protection:**



Safety glasses with side shields conforming to EN166, ANSI 87.1-2010, or equivalent.

- **Body protection:**

Use protective suit.

Full head, face and neck protection

Boots

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:

Granulate .

Colour:

White

- **Odour:**

Pungent

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- **Odour threshold:** Not determined.
- **pH-value:** 4-7 (10% solution)
- **Change in condition**
 - Melting point/freezing point:** 120-170 °C
 - Initial boiling point and boiling range:** Undetermined.
- **Flash point:** 70 °C (closed-cup)
- **Flammability (solid, gas):** Flammable.
May cause fire.
- **Ignition temperature:** 370 °C
- **Decomposition temperature:** 163 °C
- **Explosive properties:** Explosive when mixed with combustible material.
- **Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Vapour pressure:** Not applicable.
- **Density:** 0.6-0.8 g/cm³
- **Vapour density** Not applicable.
- **Evaporation rate** Not applicable.
- **Solubility in / Miscibility with water:** 25g/100ml (warm water)
- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity:**
 - Dynamic:** Not applicable.
 - Kinematic:** Not applicable.
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity:** When properly handled and stored, no dangerous reaction is known.
- **Chemical stability:** This product is stable under prescribed use and storage.
- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Possibility of hazardous reactions:**
 - Reacts with acids, alkalis and oxidising agents.
 - Reacts with amines.
 - Reacts with oxygen.
 - Forms explosive gas mixture with air.
- **Conditions to avoid:** Protect from heat. Keep ignition sources away.
- **Incompatible materials:**
 - Strong oxidizing agents
 - Reducing agents.
 - Acids.
 - Anhydride.
 - Alkalis.
 - Amines.
 - Isocyanates.
 - Copper.
 - Oxygen.
- **Hazardous decomposition products:**
 - Formaldehyde

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Carbon monoxide (CO) and carbon dioxide (CO₂)

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11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity** No further relevant information available.
- **Skin corrosion/irritation:** Causes skin irritation.
- **Serious eye damage/eye irritation:**
Causes serious eye irritation.
Rabbit: severe eye irritation (OECD 405)
- **Respiratory or skin sensitization:** Not classified based on available data.
- **Germ Cell Mutagenicity:** No further relevant information available.
- **Carcinogenicity:**
Formaldehyde, the decomposition product of paraformaldehyde, has been listed as a carcinogen by NTP and IARC. Limited evidence of carcinogenicity in animal studies.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- **Reproductive Toxicity:** No further relevant information available.
- **Specific Target Organ Toxicity - Single Exposure (STOT SE):**
May cause respiratory irritation.
Causes damage to organs.
- **Specific Target Organ Toxicity - Repeated Exposure (STOT RE):**
No further relevant information available.
- **Aspiration Hazard:** No further relevant information available.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Strong irritant with the danger of severe eye injury.
- **Respiratory or skin sensitisation** No sensitising effects known.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** Harmful to aquatic life with long lasting effects.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Do not allow product to reach ground water, water course or sewage system.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Any disposal method should also comply with national, regional, provincial, and local laws.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.



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14 Transport information

- UN-Number
- ADR, IMDG, IATA UN2213
- UN proper shipping name
- ADR 2213 PARAFORMALDEHYDE
- IMDG, IATA PARAFORMALDEHYDE
- Transport hazard class(es)
- ADR, IMDG, IATA



- Class 4.1 Flammable solids, self-reactive substances and solid desensitised explosives.
- Label 4.1
- Packing group
- ADR, IMDG, IATA III
- Environmental hazards: Not applicable.
- Special precautions for user Warning: Flammable solids, self-reactive substances and solid desensitised explosives.
- 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.

· 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

- 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": UN2213, PARAFORMALDEHYDE, 4.1, III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Status of global inventories:
All component(s) within this product is listed or exempted from the following country's chemical inventory:
USA – TSCA
Australia – AICS
Canada – DSL
China – IECSC HSNO approval number : HSR001283
EU – EINECS/NLP
Japan – ENCS
Korea – KECI
New Zealand – NZIoC
Philippines – PICCS

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Taiwan – TCSI
 Mexico - INSQ
 Thailand - TECI

16 Other information

- **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)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 Flam. Sol. 2: Flammable solids – Category 2
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
 STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- **Sources**

Most toxicological and eco-toxicological data are obtained from European Chemical Agency (ECHA)'s public dissemination website.

- **General Disclaimers:**

CCP Group recommends that all the users/customers/recipients to study this Safety Data Sheet (SDS) carefully and understand all the data or any potential hazards associated with this product. Please consult with appropriate expert if necessary. The information herein is provided in good faith and is believed to be accurate on the date of issue. No warranty, expressed or implied, is given. It is the customer's/user's responsibility to ensure that they are complying with local, regional, state, provincial, and/or national laws in using this product, as regulatory requirement may differ at each level. It is also the customer's/user's responsibility to determine the necessary condition required for using this product safely, as actual operating or usage conditions are beyond CCP Group's control. CCP Group will not be responsible for any SDS obtained from elsewhere other than from CCP Group. If you are unsure whether the SDS you have is current or have obtained the SDS from another source; please contact us to obtain the latest version.

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If more information is required please contact the NZ supplier or go to www.epa.govt.nz