

Common Name: **PARAFORMALDEHYDE**

Synonyms: Metaformaldehyde; Paraform; Polyoxymethylene

CAS No: 30525-89-4

Molecular Formula: (CH₂O)_n (Polymer)

RTK Substance No: 1454

Description: White, crystalline solid with an odor of *Formaldehyde*

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
3 - Health 2 - Fire 1 - Reactivity DOT#: UN 2213 ERG Guide #: 133 Hazard Class: 4.1 (Flammable Solid)	COMBUSTIBLE SOLID Use dry chemical, CO ₂ , water spray or alcohol-resistant foam as extinguishing agents. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Formaldehyde</i> , which is HIGHLY FLAMMABLE. Use water spray to keep fire-exposed containers cool. Paraformaldehyde may form an ignitable vapor/air mixture in closed tanks or containers at temperatures above 160°F (71°C).	Paraformaldehyde decomposes slowly in WATER to form toxic and flammable <i>Formaldehyde gas</i> . Paraformaldehyde is not compatible with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE); ISOCYANATES ; ACID ANHYDRIDES ; REDUCING AGENTS (such as LITHIUM, SODIUM, ALUMINUM and their HYDRIDES) and METALS (such as BRASS, COPPER, STEEL AND BRONZE).

SPILL/LEAKS

Isolation Distance:

Spill: 25 meters (75 feet)

Fire: 800 meters (1/2 mile)

Moisten spilled material first or use a HEPA-filter vacuum for clean-up and place into sealed containers for disposal.

DO NOT wash into sewer.

Paraformaldehyde is harmful to aquatic organisms.

PHYSICAL PROPERTIES

Odor Threshold:	<i>Formaldehyde</i> -like
Flash Point:	160°F (71°C)
LEL:	7%
UEL:	73%
Auto Ignition Temp:	572°F (300°C)
Vapor Density:	1.03 (air = 1)
Vapor Pressure:	1.2 mm Hg at 75°F (25°C)
Specific Gravity:	1.46 (water = 1)
Water Solubility:	Slowly dissolves
Boiling Point:	Decomposes
Melting Point:	313°F (156°C)
Molecular Weight:	600 (approx.)

EXPOSURE LIMITS

OSHA: 0.75 ppm, 8-hr TWA; 2 ppm, STEL (as *Formaldehyde*)

ACGIH: 0.3 ppm, Ceiling

IDLH: 20 ppm (as *Formaldehyde*)

The Protective Action Criteria values are:

PAC-1 = 12.5 mg/m³ PAC-2 = 75 mg/m³

PAC-3 = 100 mg/m³

PROTECTIVE EQUIPMENT

Gloves:	Butyl, Nitrile, Silver Shield®/4H®, Viton and Barrier® (>8-hr breakthrough for <i>Formaldehyde</i>)
Coveralls:	Tychem® SL, CPF 3, F, BR, Responder®, and TK; and Trelchem® HPS and VPS (>8-hr breakthrough for <i>Formaldehyde</i>)
Respirator:	SCBA

HEALTH EFFECTS

Eyes: Severe irritation, burns and possible damage

Skin: Severe irritation and burns

Inhalation: Nose, mouth, throat and lung irritation with coughing and severe shortness of breath (pulmonary edema)

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 30 minutes. Remove contact lenses if worn. Seek medical attention.

Quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water. Seek medical attention.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer promptly to a medical facility.

Medical observation is recommended as symptoms may be delayed.