

FORMALDEHYDE

1. Basic Information

Product Name	Formaldehyde
Structural Formula	
Molecular Formula	CH ₂ O
CAS No.	50-00-0
EC No.	200-001-8
Uses / Applications	• Formaldehyde is a raw material used in hundreds of everyday products. It is a basic building block chemical essential to the operation of more than 80 industries. • Construction: A major use of formaldehyde is in the manufacture of adhesive resins for plywood, fibreboard and particleboard for residential and commercial construction. Urea-formaldehyde resins are a principal component of foam in-place insulation for homes. Also, many paints and varnishes are based on formaldehyde. • Molding compounds: Molding compounds made using formaldehyde resins appear in buttons, dinnerware, cookware handles, light switch cover plates, PC circuit boards and scores of other products. Foundries require formaldehyde for bonding the molds used to make castings. • Textiles: Formaldehyde resins are an important in imparting permanent press to textiles • Paper: Formaldehyde resins are used to bond the fibres in paper to make them more absorbent. • Other uses: A rapidly growing, relatively new use is in manufacturing tough, hard polyacetal plastics that help reduce the weight of automobiles to increase mileage. It is also used in the hard, durable personal computer keyboards, printers and CPU enclosures. Other specialty applications include shampoos, hand lotions, toothpastes, disinfectants, embalming fluids, fumigants, leather tanning agents and oil well drilling mud additives.

2. Specifications

Items	Specification
Formaldehyde, wt %	4-52

TECHNICAL SPECIFICATION

Methanol content, wt %	<1-15
Acidity, wt %	0.03-0.05
Colour, APHA	<10
Sodium, mg/l	<10
Appearance	Clear and colourless
pH	2.2-5.6
Specific gravity	1.07-1.16

3. Additional Information

Shipping, Handling & Storage	Formaldehyde is available in full truck load quantities. Formaldehyde solutions should be used as soon as is practical. Shelf-life may vary from 1 week for high formaldehyde assay solutions to indefinite for solutions with a high methanol content. The NPFA Hazardous Materials Identification System rating for regular formaldehyde solutions is: Health Hazard - 3; Flammability - 2; Reactivity - 2. Solutions with a methanol content >10% have a flammability rating of 3. Formaldehyde is classified either as "DOT not regulated" or "DOT regulated" by the US Department of Transportation, depending on the amount of formaldehyde and methanol present. The Harmonized Tariff Code is 2912.11. Formaldehyde is listed on the Chemical Substance Inventory under the US Toxic Substances Control Act, on the Canadian DSL and on the European Inventory of Existing Chemical Substances. The US and Canadian CAS Registry Number is 50-00-0 and the European EINECS Registry Number is 200-001-8.
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