EDDM

CAS No.	EINECS No.	UN No.	Molecular Formula / Product Type
3586-55-8	222-720-6	Not regulated	Commercial EDDM mixture; active component C4H10O4

Product Description

EDDM, (ethylenedioxy)dimethanol or ethylene glycol bis(semiformal), is a formaldehyde-releasing preservative for industrial water-based formulations. The liquid grade has active content ≥95.0% and is used for microbial control in metalworking fluids, coatings, adhesives and process-water systems. Total formaldehyde is an analytical content parameter, distinct from the free-formaldehyde component concentration stated in the SDS.

Specifications

Parameter	Specification
Appearance	Colorless to light yellow transparent liquid
Active content	≥95.0%
Density (25°C)	1.19–1.21 g/mL
Total formaldehyde	≥45.0%
pH (25°C, 10% aqueous solution)	6.0–9.0
Refractive index (20°C)	1.40–1.45

Typical Properties / Use Guidance

Property / Guidance	Typical Value
Active component molecular weight	122.12 g/mol
Water solubility	Miscible with water
Flash point, closed cup	88.0°C
General use guidance	In-can preservation: 0.1–0.3%; working-fluid maintenance: 0.3–0.5%.
Polymer dispersions (indicative dosage)	0.05–0.20%
Latex paints (indicative dosage)	0.10–0.25%
Adhesives (indicative dosage)	0.05–0.20%
Plasters and mortars (indicative dosage)	0.05–0.20%
Oil-based alkyd emulsion paints (indicative dosage)	0.15–0.20%
Cleaners, detergents and fabric softeners (indicative dosage)	0.05–0.20%
Filler dispersions and pigment slurries (indicative dosage)	0.05–0.15%
Thickener concentrates (indicative dosage)	0.10–0.20%
Starch, dextrin and cellulose-derivative glues (indicative dosage)	0.10–0.20%
Concrete admixtures (indicative dosage)	0.10–0.30%
Detergents (indicative dosage)	0.05–0.15%
Metalworking fluids (indicative dosage)	0.1–0.3%
Coatings and polymer emulsions (indicative dosage)	0.05–0.2%
Paper pulp (indicative dosage)	0.1–0.3%
Addition guidance	Add toward the end of production and mix thoroughly, preferably below 40°C; maximum stated addition temperature 80°C. Avoid high-temperature treatment after addition; re-dose after heat treatment where required.
Compatibility	Not recommended for protein-containing formulations. Dosage ranges are starting points for formulation trials, not guaranteed performance limits.

Applications

- Preservation of water-based metalworking fluids and oil emulsions.
- In-can preservation of water-based coatings, polymer dispersions and pigment slurries.
- Microbial control in adhesives, starch-based glues and thickener concentrates.
- Preservation in paper-pulp, industrial process-water and detergent systems, where permitted.

Packaging and Storage

Packaging	25 kg stackable plastic drums, 200 kg double-ring drums or 1,000 kg IBCs.
Storage	Keep tightly sealed in a dry, well-ventilated indoor area at room temperature below 40°C. Protect from direct sunlight and freezing. Shelf life: 12 months under the stated storage conditions.

Safety and Regulatory

For industrial use. Combustible liquid; harmful if swallowed; causes skin irritation and serious eye damage; may cause an allergic skin reaction and may cause cancer. Read the SDS and label before use. Wear appropriate protective clothing, chemical-resistant gloves and eye/face protection. Biocidal uses must comply with destination-market requirements; this TDS does not constitute a biocide authorisation or replace the SDS.

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The information is provided in good faith for professional evaluation. Specifications apply to the stated commercial grade; users must confirm suitability, regulatory compliance and safe handling for their intended application.