Safety Data Sheet: EDDM

1. Identification

Product name	EDDM
Chemical name	(Ethylenedioxy)dimethanol; ethylene glycol bis(semiformal)
Identifiers	Active component CAS 3586-55-8; EC 222-720-6
Product type	Industrial commercial mixture; active component C4H10O4, 122.12 g/mol
Recommended uses	Industrial preservative for water-based metalworking fluids, coatings, adhesives, detergents, emulsions and process-water systems. Industrial hydrogen-sulfide scavenging applications are also described for this chemistry.
Restrictions	For industrial and research use. No medicinal, food, household-disinfection or unrestricted biocidal-use authorisation is implied.
Supplier	Hainan Zhongxin Chemical Co., Ltd. (ZXCHEM)
Address	Room 1001, Building A, Caohejing Center, No. 1520 Gumei Road, Xuhui District, Shanghai, China
Telephone / contact	+86-21-54265599 | sales@zxchem.com.cn | https://www.zxchem.com/
Emergency contact	+86-21-54265599 (office hours, China time, UTC+8; not a 24-hour emergency service)
Applicable grade	Safety information applies to the commercial mixture described in Section 3. This document does not certify the composition of an individual delivered batch.

2. Hazards identification

Classification	Flammable liquids, Category 4; acute toxicity (oral), Category 4; skin irritation, Category 2; serious eye damage, Category 1; skin sensitisation, Category 1; carcinogenicity, Category 1A.
Signal word / pictograms	DANGER | GHS05, GHS07, GHS08
Hazard statements	H227 Combustible liquid. H302 Harmful if swallowed. H315 Causes skin irritation. H318 Causes serious eye damage. H317 May cause an allergic skin reaction. H350 May cause cancer.
Prevention	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking. P261 Avoid breathing mist, vapours or spray. P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves, protective clothing and eye/face protection.
Response	P370+P378 In case of fire: use water spray, dry powder, carbon dioxide or suitable foam. P301+P312 IF SWALLOWED: Call a poison centre or doctor if you feel unwell. P330 Rinse mouth. P302+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P313 If skin irritation or rash occurs: get medical advice. P362+P364 Take off contaminated clothing and wash it before reuse. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes; remove contact lenses if present and easy to do; continue rinsing. P310 Immediately call a poison centre or doctor. P308+P313 IF exposed or concerned: get medical advice.
Storage / disposal	P405 Store locked up. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container in accordance with local, regional and national regulations.
Other hazards	No additional hazard information is available. Avoid environmental release; lack of ecotoxicity data does not establish environmental safety.



3. Composition / information on ingredients

Substance or mixture	Mixture
(Ethylenedioxy)dimethanol	CAS 3586-55-8 | >95%
Water	CAS 7732-18-5 | <5%
Free formaldehyde	CAS 50-00-0 | 0.05–0.1%
Composition note	The reported ranges describe the commercial grade. Total formaldehyde in quality specifications is not the free-formaldehyde concentration.

4. First-aid measures

Skin contact	Wash skin thoroughly with plenty of water and soap. Remove contaminated clothing. Seek medical attention if irritation or a rash develops.
Eye contact	Immediately hold eyelids open and rinse with running water for at least 15 minutes. Remove contact lenses if easy to do. Obtain immediate medical attention.
Inhalation	Move the affected person to fresh air and keep the airway clear. Seek medical attention if unwell.
Ingestion	If conscious, rinse the mouth with water and obtain immediate medical attention. Do not give anything by mouth to an unconscious person.
Symptoms / medical attention	Harmful if swallowed; skin irritation, sensitisation and serious eye damage are relevant exposure effects. Further symptom or special-treatment data are not available.
Rescuer protection	Use personal protective equipment when entering an incident area.

5. Fire-fighting measures

Suitable extinguishing media	Water spray, dry powder, carbon dioxide or suitable foam.
Unsuitable media	No product-specific data available.
Special hazards	Combustible liquid. Heating or burning may release carbon oxides.
Firefighter protection	Wear positive-pressure self-contained breathing apparatus and protective clothing. Fight fire from upwind; keep unprotected persons out of the area.

6. Accidental release measures

Personal precautions	Use appropriate protective equipment and ventilation. Avoid inhalation and skin/eye contact. Remove ignition sources and restrict access to the affected area.
Environmental precautions	Stop the leak if safe to do so. Prevent entry into drains, surface water and groundwater.
Small spills	Absorb with inert material such as dry sand or diatomaceous earth. Collect in dry, clean, lidded suitable containers; avoid inhalation and contact.
Large spills	Contain by bunding or excavation. Reduce vapour/mist where appropriate and remove under specialist direction. Collect contaminated cleanup water for disposal.

7. Handling and storage

Safe handling	Use trained operators, suitable ventilation and protective equipment. Avoid inhalation and contact. Keep away from heat, sparks and flames. Do not smoke. Use appropriate transfer and static-control precautions and handle containers carefully. Wash hands and face after work.
Storage conditions	Store tightly closed in a cool, dry, ventilated indoor location at room temperature below 40°C. Protect from sunlight and freezing. Keep away from ignition sources, food and feed.
Segregation	Store away from incompatible materials, including oxidising agents. Maintain suitable spill-control and fire-fighting equipment.

8. Exposure controls / personal protection

Control parameter: formaldehyde	China GBZ 2.1-2019: MAC 0.5 mg/m3. Exposure limits apply to the workplace atmosphere, not product concentration.
Additional reported formaldehyde limits	TLV-TWA 0.1 ppm (0.12 mg/m3); TLV-STEL 0.3 ppm (0.37 mg/m3). Apply current local occupational limits and a workplace exposure assessment.
Engineering controls	Provide effective ventilation and accessible safety showers and eye-wash facilities.
Hands / skin	Wear suitable chemical-resistant protective gloves and protective work clothing. Check glove suitability for the task and exposure duration.
Eye / face	Wear protective goggles and suitable face protection.
Respiratory protection	Use an approved respirator appropriate to vapour/mist exposure when engineering controls are insufficient.
Hygiene / monitoring	Do not eat, drink or smoke in the work area. Clean contaminated clothing before reuse. Biological-limit and product-specific monitoring-method data are not available.

9. Physical and chemical properties

Appearance / odour	Colorless to light yellow transparent liquid; slight characteristic odour.
pH	7.2–7.3 (50 g/L solution); separate quality specification: 6.0–9.0 at 25°C, 10% aqueous solution. Different test concentrations are not interchangeable.
Flash point	88.0°C, closed cup
Density	Quality specification: 1.19–1.21 g/mL at 25°C
Refractive index	Quality specification: 1.40–1.45 at 20°C
Water solubility	Miscible with water
Melting/freezing point; boiling point	No data available
Vapour pressure / density; evaporation rate	No data available
Flammable/explosive limits; auto-ignition	No data available
Partition coefficient; decomposition temperature	No data available
Viscosity and other physical properties	No data available

10. Stability and reactivity

Chemical stability	Stable at normal temperature and pressure under the stated storage conditions.
Reactivity / hazardous reactions	No specific reaction data available.
Conditions to avoid	Heat, ignition sources and unsuitable storage conditions.
Incompatible materials	Oxidising agents; no exhaustive mixture-specific incompatibility data available.
Decomposition products	Carbon oxides may be released during heating or combustion.

11. Toxicological information

Exposure routes / acute effects	Ingestion, skin/eye contact and inhalation of mist or vapour are relevant routes. Harmful if swallowed. No quantitative mixture acute-toxicity data are available.
Skin / eye effects	Causes skin irritation and serious eye damage. Avoid all direct contact.
Sensitisation	May cause an allergic skin reaction. Respiratory-sensitisation data are not available.
Carcinogenicity	The commercial-mixture classification includes Category 1A / H350. Formaldehyde is identified as a carcinogenic component; do not disregard this mixture warning on the basis of its low stated free concentration.
Other endpoints	No mixture-specific data available for germ-cell mutagenicity, reproductive toxicity, specific target organ toxicity, or aspiration hazard. Lack of data does not establish absence of hazard.

12. Ecological information

Ecotoxicity	No mixture-specific quantitative data available.
Persistence / degradability	No data available; no readily biodegradable claim is made.
Bioaccumulation / mobility	No data available.
Other environmental information	Prevent release to drains, soil, surface water and groundwater.

13. Disposal considerations

Product	Recover where feasible. Dispose of unrecoverable product through a qualified chemical-waste contractor using an authorised process. Do not discharge to drains.
Contaminated packaging	Return or dispose of empty contaminated containers through an authorised route in accordance with applicable national/local requirements. Treat residue as chemical waste.
Waste assignment	The user must assign the appropriate waste classification for the actual use and contamination state.

14. Transport information

ADR / RID	Not restricted as dangerous goods for the described grade.
IMDG	Not restricted as dangerous goods for the described grade.
ICAO / IATA	Not restricted as dangerous goods for the described grade.
UN number / proper shipping name	Not assigned for transport as dangerous goods
Transport class / packing group	Not applicable
Environmental transport hazards	No dangerous-goods environmental classification is assigned in the available grade transport information. Prevent environmental release.
Special precautions	Keep containers sealed, upright and protected from damage, rain, sunlight and excessive heat. Do not co-load with food. Keep away from ignition sources; provide suitable spill and fire-response equipment.
Bulk transport	No bulk-transport authorisation or specific bulk-carriage data are provided.

15. Regulatory information

Inventory information	The components are reported as listed in the China existing-chemicals inventory. This does not constitute product registration or use authorisation.
Other national lists	No independent blanket inventory, precursor, dangerous-chemical or controlled-substance exemption is asserted for all destinations.
Biocidal uses	Biocidal supply and use may require active-substance, supplier and finished-product authorisations in the destination market. Confirm the applicable use and market before supply; no unrestricted market approval is claimed.
Format / assessment	Sixteen-section GHS safety information for the described industrial mixture. No independent mixture chemical-safety assessment or regional compliance certification is implied.

16. Other information

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Prepared by	ZXCHEM
Abbreviations	GHS: Globally Harmonized System. MAC: maximum allowable concentration. TWA: time-weighted average. STEL: short-term exposure limit. ADR/RID, IMDG and IATA: road/rail, maritime and air dangerous-goods frameworks.
Use of information	Safety information supports professional handling of the stated grade and is not a quality guarantee or market authorisation. Users must assess the actual application, exposure and applicable local requirements.
Document scope	Reference safety information for the material and grade described in Sections 1 and 3. Different concentrations, solvents or formulations require the applicable safety information. This is not a batch analytical certificate.

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