

Safety Data Sheet: Methyl Ethyl Ketoxime (MEKO)

Version 2026 | Revision date: 2026-10-13 | Language: English

1. Identification

Product	Methyl Ethyl Ketoxime (MEKO)
CAS / EC	96-29-7 / 202-496-6
Use	Oxime intermediate and anti-skinning additive for qualified industrial coating applications.
Uses advised against	Unassessed consumer, medical or other applications outside the qualified grade and intended use.
Supplier	Hainan Zhongxin Chemical Co., Ltd. (ZXCHEM)
Address	Room 1001, Building A, Caohejing Center, No. 1520 Gumei Road, Xuhui District, Shanghai, China
Contact	+86-21-54265599 sales@zxchem.com.cn www.zxchem.com
Emergency contact	+86-21-54265599; office hours, China time UTC+8. For an urgent incident, contact local emergency services.
Scope	Reference safety information for Methyl Ethyl Ketoxime (MEKO). The reference composition, concentration and supply-grade differences are described in Section 3. This document does not certify the composition or transport status of a specific delivered batch or a different formulation.

2. Hazard identification

Classification	Combustible liquid 4; oral acute toxicity 3; dermal acute toxicity 4; skin irritation 2; eye damage 1; skin sensitization 1; carcinogenicity 1B; STOT single exposure 1 and 3; STOT repeated exposure 2 (2026 reference).
Signal word	Danger
Pictograms	GHS05, GHS06, GHS08
Hazard statements	H227: Combustible liquid. H301: Toxic if swallowed. H312: Harmful in contact with skin. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H336: May cause drowsiness or dizziness. H350: May cause cancer. H370: Causes damage to organs. H373: May cause damage to organs through prolonged or repeated exposure.
Prevention	P264: Wash exposed skin after handling. P280: Wear suitable protective gloves, clothing and eye protection. P260/P271: Avoid inhalation; use adequate ventilation and effective exposure controls. P201/P202: Obtain instructions before use; understand the precautions before handling. P270: Do not eat, drink or smoke when using this material. P210: Keep away from heat, sparks, flames and other ignition sources.
Response	Follow the exposure-specific first-aid measures in Section 4. Remove contaminated clothing. Seek urgent advice for severe symptoms.
Storage / disposal	Keep closed under the conditions in Section 7. Dispose through an authorized waste route under local rules.
Other hazards	Dust, splashes, process conditions and decomposition can create exposure risks not represented by the commercial assay.



3. Composition/information on ingredients

2-Butanone oxime	CAS 96-29-7; high-purity liquid reference; commercial assay ≥99.5%.
Commercial scope	High-purity 2-butanone oxime liquid reference. The commercial ≥99.5% assay, water and acidity limits are in the TDS; this does not characterize a coating mixture or other dilution.

4. First-aid measures

Eye contact	Rinse eyes immediately with water for at least 15 minutes; remove contact lenses when easily possible and continue rinsing. Obtain urgent medical attention.
Inhalation	Move to fresh air without exposing rescuers. Obtain immediate emergency medical assistance; trained personnel may give oxygen or assisted breathing.
Skin contact	Remove contaminated clothing and rinse thoroughly with water. Obtain urgent medical care for burns or toxic exposure.
Ingestion	Rinse the mouth. Do not induce vomiting or give anything by mouth to an unconscious person. Obtain immediate poison-center or medical advice.
Symptoms	Toxic by ingestion; harmful on skin contact; can seriously damage eyes and sensitize skin. The matched reference assigns cancer category 1B and single/repeated target-organ hazards; CNS depression is described.
Immediate treatment	Urgent medical assessment is required after serious exposure. Treat symptoms; rescuers must avoid secondary exposure.

5. Fire-fighting measures

Media / specific hazards	Combustible liquid. Use foam, dry chemical, carbon dioxide or water fog; avoid a jet. Heated material can release carbon oxides and nitrogen-containing fumes.
Protection	Use full protective equipment and self-contained breathing apparatus. Fight from a safe position; contain contaminated firewater and cool exposed containers when safe.

6. Accidental release measures

Personal / environmental precautions	Restrict entry, avoid exposure and prevent environmental release. Use the controls and protection in Section 8.
Containment / cleanup	Exclude unprotected personnel, ventilate and contain the liquid. Use a compatible inert, noncombustible absorbent and transfer to labeled waste containers; prevent entry to drains.
References	See Sections 7, 8 and 13 for handling, protection and disposal.

7. Handling and storage

Handling	Avoid contact and inhalation; maintain ventilation and good hygiene. Use suitable equipment and prevent chemical contamination.
Storage	Keep tightly closed in a cool, ventilated place protected from sunlight and excessive heat. Use compatible containers and prevent contamination. Keep away from flames, strong oxidizers, acids, bases and peroxides.
Incompatibilities	Stable under recommended storage conditions. Avoid excessive heat, ignition sources, strong oxidizers and chemical contamination.
Specific end use	Oxime intermediate and anti-skinning additive for qualified industrial coating applications.

8. Exposure controls/personal protection

Control parameters	No supply-specific occupational exposure limit or DNEL/PNEC is established by this record. Apply local substance and particulate exposure limits where relevant.
Engineering and personal protection	Use closed transfer or local extraction. Provide an eyewash and safety shower. Wear chemical-resistant gloves selected for the actual exposure, protective clothing and splash goggles. Add a face shield where splash exposure is possible. For airborne mist or vapor, use a suitable approved respirator selected through a workplace risk assessment; emergency or unknown atmospheres require independent air supply.
Hygiene / environmental control	Wash after handling; separate contaminated clothing. Contain product and process effluent; do not eat or drink in handling areas.

9. Physical and chemical properties

Physical state / appearance	Clear, colorless liquid
Formula / formula weight	C ₄ H ₉ NO; 87.12 g/mol; component identity
Water	≤0.1 %
Flash point, reference	62°C.
Relative density, reference	0.923.
Water solubility, reference	114 g/L at 20°C.
Odor / odor threshold	No supply-grade value provided.
Boiling / decomposition point	No supply-grade limit provided.
Flammability / flash point	No supply-grade test value provided; see fire and reactivity information in Sections 5 and 10.
Vapor pressure / density	No supply-grade value provided.
Partition coefficient / autoignition	No supply-grade value provided.

10. Stability and reactivity

Reactivity / stability / reactions	Stable under recommended storage conditions. Avoid excessive heat, ignition sources, strong oxidizers and chemical contamination.
Conditions and materials to avoid	Follow the incompatible-material and storage requirements in Section 7.
Decomposition products	See Section 5. No normal-storage decomposition is indicated under the recommended conditions.

11. Toxicological information

Routes / effects	Toxic by ingestion; harmful on skin contact; can seriously damage eyes and sensitize skin. The matched reference assigns cancer category 1B and single/repeated target-organ hazards; CNS depression is described. Reference oral LD ₅₀ 930 mg/kg, rat; inhalation LC ₅₀ >4.83 mg/L, rat, 4 h. Target organs for every STOT endpoint are not specified.
Other endpoints	Supply-batch sensitization, mutagenicity, carcinogenicity, reproduction and repeated-dose testing has not been provided. This does not override the classifications and target organs listed in Section 2.
Mixture assessment	Reference-substance or component results are not delivered-batch analytical or toxicological results.

12. Ecological information

Aquatic toxicity / behavior	Reference endpoints: fish LC50 760 mg/L, 96 h; Daphnia EC50 750 mg/L, 48 h; algae EC50 83 mg/L, 72 h. Reference log Kow 0.65 and BCF 2.5–5.8; prevent drain discharge.
Other environmental endpoints	Supply-batch PBT/vPvB, endocrine-disruption, persistence, degradation, mobility and bioaccumulation assessments have not been provided. Do not infer absence of effects from missing data.

13. Disposal considerations

Product and residues	Characterize waste under applicable local rules and use a licensed waste contractor. Do not discharge chemical residues or contaminated process water to drains.
Contaminated packaging	Do not reuse contaminated packaging for unrelated purposes. Handle retained material with the same protection as the product and use an authorized disposal or return route.

14. Transport information

ADR / RID	UN 2810; TOXIC LIQUID, ORGANIC, N.O.S. (2-butanone oxime); Class 6.1; PG III.
IMDG	UN 2810; TOXIC LIQUID, ORGANIC, N.O.S. (2-butanone oxime); Class 6.1; PG III.
IATA	UN 2810; TOXIC LIQUID, ORGANIC, N.O.S. (2-butanone oxime); Class 6.1; PG III.
Environmental hazards	No transport environmental-hazard designation is assigned in the matched reference.
Special precautions	Use mode-appropriate packaging and secure closures. Quantity exemptions and bulk authorization are not assumed.
Scope	Transport entries apply to the reference identity, concentration and form described in Section 3. Changes in composition require reassessment.

15. Regulatory information

Classification framework	GHS/CLP reference classification is given for the material in Section 3. Local worker-protection, labeling, transport, environmental and end-use requirements apply.
Registration / use status	No supply-specific registration number, market authorization or end-use certification is established by this reference record.
Chemical safety assessment	No supply-formulation chemical safety assessment is supplied by ZXCHEM in this record.
End-use / market scope	Carcinogenic and toxic industrial chemical. Market access, occupational exposure, consumer-mixture restrictions and coating-use requirements depend on destination and formulation; no general end-use approval is implied.

16. Other information

Revision date	2026-10-13; initial ZXCHEM reference safety document, version 2026.1.
Abbreviations	ADR/RID: road/rail dangerous goods; IMDG: maritime dangerous goods; IATA: air dangerous goods; PG: packing group; LD50/LC50: median lethal dose/concentration; STOT: specific target organ toxicity.
Use of information	Use together with the grade TDS and a workplace assessment. Concentration, solvent, impurity or physical-form changes require applicable safety information.
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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