

Material Safety Data Sheet

Product name	Methyl ethyl ketoxime (MEKO)
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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product name	Methyl ethyl ketoxime (MEKO)
1.2. CAS-No.	96-29-7
1.3. Relevant identified uses of the substance or mixture and uses advised against	
Identified uses	Curing agent for silicon rubber and blocking agent for polyurethane
1.4. Details of the supplier of the safety data sheet	
Company	Glory Global CO.,LTD
Address	C-208, 10, Nowon-ro 15-gil, Nowon-gu, Seoul, Korea
Emergency Phone	+82 2 6223 0862

2. Hazards identification

2.1. Classification of the substance or mixture
GHS Classification

H312, Acute toxicity – Dermal 4
H317, Sensitization – Skin 1
H318, Eye damage/irritation 1
H351, Carcinogenicity 2

2.2. GHS Label elements, including precautionary statements
Pictogram



Signal word

Danger

Hazard statement(s)

- H312: Harmful in contact with skin
- H317: May cause an allergic skinreaction
- H318: Causes serious eye damage
- H351: Suspected of causing cancer

Precautionary code and statements

Prevention

- P261: Avoid breathing mist/vapours/spray.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

- P312: Call a POISON CENTER or doctor/physician if you feel unwell.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- 305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.
- Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P313: IF exposed or concerned: Get medical advice/attention.

Storage

- None

Disposal

- None

Supplemental information

- None
- None

2.3. Other hazards

3. Composition/information on ingredients

3.1. Substances

Ingredients	CAS No	% [wt]
Methyl ethyl ketoxime	96-29-7	≥ 99

4. First aid measures

4.1. Description of first aid measures

General advice

- Show this material safety data sheet to the doctor in attendance.
- First responder needs to protect himself.

If inhaled

- Place affected apparel in a sealed bag for subsequent decontamination.
- If inhalation of the product or vapours is suspected, remove exposed person to fresh air, and give rest. Obtain immediate medical attention.

In case of skin contact

- Quickly remove contaminated clothing and wash affected area with soap and water. Get immediate medical attention. Launder contaminated clothing before re-use.

In case of eye contact	– In case of contact with eyes, irrigate with water for 15 minutes, occasionally lifting eyelids. Speed is essential. Remove any contact lenses if easy to do. Seek immediate medical attention.
If swallowed	– Immediately rinse mouth. Get medical attention.
4.2. Most important symptoms and effects, both acute and delayed	– Expected to cause chemical burns to skin, eyes, respiratory system and digestive tract. Irreversible dermatitis will occur if you do not wash affected skin immediately and thoroughly. Irreversible eye damage will occur if you do not rinse affected eyes immediately and thoroughly.
4.3. Indication of any immediate medical attention and special treatment needed	– Not available.
5. Firefighting measures	
5.1. Suitable extinguishing media	– Dry chemical, carbon dioxide, regular foam, alcohol resistant foam
5.2. Special hazards arising from the substance or mixture	– Avoid inhalation of material and combustible by-products.
5.3. Advice for firefighters	– Wear self-contained breathing apparatus and full protective gear.
5.4. Special protective device to protect the fire fighters.	– Put protective equipment such as self-contained breathing apparatus and fire fighter
6. Accidental release measures	
6.1. Personal precautions, protective equipment and emergency procedures	– Remove sources of ignition. Keep unnecessary person away, isolate hazard area and deny entry.
6.2. Environmental precautions	– Prevent the material from spreading into the environment.
6.3. Methods and materials for containment and cleaning up	– Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.
6.4. Reference to other sections	– For recommended personal protective equipment, see Section 8. – For disposal considerations, see Section 13.
6.5. Precautions measures to prevent secondary hazards	– Remove combustible materials and ensure adequate ventilation.
7. Handling and storage	
7.1. Precautions for safe handling	– Keep away from heat and open flame. Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. – Advice on general occupational hygiene shall be provided such as: – not to eat, drink and smoke in work areas; – to wash hands after use; – to remove contaminated clothing and protective
7.2. Conditions for safe storage, including any incompatibilities	– Store in a cool, dry and well-ventilated location. Use package with glass, iron or stainless steel.
7.3. Specific end use(s)	– no data available
8. Exposure controls/personal protection	
8.1. Control parameters	
EU limit values	– None
US limit values	– ACGIH: Not available.
Other: human health (DNELs, DMELs)	– Worker Acute dermal systemic: DNEL 2.5 mg/kg/day Long-term dermal systemic: DNEL 1.3 mg/kg/day Long-term inhalation systemic: DNEL 9 mg/m ³ Long-term inhalation local: DNEL 3.33 mg/m ³ – General population Acute dermal systemic: DNEL 1.5 mg/kg/day Long-term dermal systemic: DNEL 0.78 mg/kg/day Long-term inhalation systemic: DNEL 2.7 mg/m ³ Long-term inhalation local: DNEL 2 mg/m ³
Other: environmental (PNEC)	– Aquatic (fresh water) PNEC: 0.256 (assessment factor: 10) – Aquatic (intermittent releases) PNEC: 0.118 (assessment factor: 100) – Sewage treatment plant PNEC: 177 (assessment factor 1)
8.2. Exposure controls	
Appropriate engineering controls	– Local exhaust ventilation or use in a closed system is recommended.
Personal protective equipment	
a) Eye/face protection	– Splash resistant safetygoggles
b) Skin protection	– Chemical resistant clothing
c) Body Protection	– Chemical resistant gloves
d) Respiratory protection	– Under conditions of frequent use or heavy exposure, respiratory protection may be needed. – Respiratory protection is ranked in order from minimum to maximum. – Consider warning properties before use. – Any chemical cartridge respirator with a full facepiece and organic vapour cartridge. – Any air-purifying respirator with a full facepiece and an organic vapour canister.
e) Control of environmental exposure	– Not available.
9. Physical and chemical properties	

9.1. Information on basic physical and chemical properties

Appearance	Colorless to yellow liquid
Odour	Characteristic odour
Odour Threshold	Not available
pH	Not available
Melting/freezing point	-29.5°C
Initial boiling point/range	>152°C (101.3kPa)
Flash point	61.97°C (closed cup)
Evaporation rate	Not available
Flammability (solid, gas)	Non-flammable
Flamm. or expl. Limits	Explosive limits: 1.9–12.3
Vapour pressure	3 (air = 1)
Vapour density	no data available
Relative density	0.9232–0.9238 (20°C)
Water solubility	100000 mg / L (25°C) Soluble in alcohol and ether
Partition coefficient. (Kow)	log Pow = 0.63 (25°C)
Auto-ignition temperature	314–317°C
Decomposition temperature	Not available
Viscosity	15 mPa·s (20°C)
Explosive properties	Non-explosive
Oxidizing properties	Non-oxidising
9.2. Other safety information	Dissociation constant: pKa = 12.45 (25°C)

10. Stability and reactivity

10.1. Chemical stability	– Stable at normal temperature and pressure.
10.2. Possibility of hazardous reactions	– Not available
10.3. Conditions to avoid	– Avoid dust formation. – Keep away from open flames, hot surfaces and sources of ignition.
10.4. Incompatible materials	– Strong acids
10.5. Hazardous decomposition products	– Thermal decomposition products like oxides of carbon and nitrogen.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity	LD50 oral-rat = 2326 mg/kg LD50 dermal-rabbit = 1,000–1,800mg/kg EU CLP category:Cat.4; H312, DSD category: Xn; R21 LC50 inhalation-rat > 13.2 mg/L/4h
Skin corrosion/irritation	Slightly irritating
Serious eye damage/eye irritation	Corrosive (irreversible damage, rabbit) EU CLP category:Cat.1; H318, DSD category: Xi; R41
Respiratory or skin sensitisation	Guinea pig maximization test : Sensitizing EU CLP category:Cat.1; H317, DSD category: R43
Germ cell mutagenicity	In vitro mammalian cell gene mutation: Negative Ames test: Negative In vivo gene mutation: Negative In vivo chromosome aberration: Negative
Carcinogenicity	EU CLP category:Cat.2; H351, DSD category: Cat.3; R40
Reproductive toxicity	Rat oral two-generation reproductive toxicity study: NOAEL maternal: 14 mg/kg/day, developmental: NOAEL 24 mg/kg/day
Specific target organ toxicity – single exposure	Not available.
Specific target organ toxicity – repeated exposure	NOAEL 25 mg/kg/day (oral-rat, 13weeks) NOAEC 90 g/m3/day (inhalation-rat, 28days)
Aspiration hazard	Not available.

12. Ecological information

12.1. Toxicity

Toxicity to fish	96-h LC50 >100 mg/L (<i>Oryzias latipes</i>)
Toxicity to daphnia and other aquatic invertebrates	48-h EC50 = 201 mg/L (<i>Daphnia magna</i>)
Toxicity to algae/aquatic plants	72-h ECr50 = 11.8 mg/L (<i>Scenedemus capricornutum</i>)
Toxicity to longterm fish	14-d NOEC = ca. 50 mg/L (<i>Oryzias latipes</i>)
Chronic daphnia	21-d NOEC ≥100 mg/L <i>Daphnia magna</i>)

12.2. Persistence and degradability

Biodegradability	Readily biodegradable. (OECD302B) LogKow = 0.63 (25°C)
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12.3. Bioaccumulative potential

BCF = 0.5–0.6 (*Cyprinus carpio*) (OECD305C)

12.4. Mobility in soil Data lacking
12.5. Other adverse effects Data lacking

13. Disposal considerations

13.1 Product Disposal

- Disposal must be in accordance with current national and local regulations.
- Chemical residues generally count as special waste.
- General EU requirements are given in Directive 2008/98/EC.
- The product may be neutralized before disposal by the following procedure.
- Packaging may contain residues of the product and should be treated accordingly.
- Do not dump this material into sewers, on the ground, or into any body of water.

14. Transport information

14.1. UN Number No classification assigned
14.2. UN proper shipping name None
14.3. Transport hazard class(es) None
14.4. Packing group None
14.5. Environmental Hazard Not classified as environmentally hazardous.
14.6 Special precautions for user Not available.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture Please refer to any other regulations of each country.

16. Other information

16.1. Further information

- Always work safely around open hatches on bulk tanks. The low density makes flotation difficult for immersed person.

