

# **Safety Data Sheet**

## **According to Regulation (EC) No 1907/2006**

Methyl Ethyl Ketoxime

Issue date: 29/07/2015

Version 2.0

Revision date: 01/08/2024

eSDS Record Number: CSSS-TCO-010-117769

### **Section 1 Identification of the substance/mixture and of the company/undertaking**

#### **1.1 Product identifier:**

Identification on the label/Trade name: Methyl Ethyl Ketoxime  
Additional identification: Butanone oxime, MEKO  
Identification of the product: CAS#: 96-29-7 ; EC#: 202-496-6  
Index Number: 616-014-00-0  
REACH registration No.: 01-2119539477-28-xxxx

#### **1.2 Relevant identified uses of the substance and uses advised against:**

##### **1.2.1 Identified uses:**

- F-1: Manufacturing liquid paints
- F-2: Formulation of liquid paints containing MEKO
- IW-1: Industrial application of coatings
- IW-2: Intermediate use of MEKO
- IW-3: Formulation of liquid paints containing MEKO
- IW-4: Intermediate use of MEKO
- PW-1: Professional application of coatings (Indoor)
- PW-2: Professional application of coatings (Outdoor)
- PW-3: Professional application of paints containing MEKO
- C-1: Consumer application of coatings (Indoor)
- C-2: Consumer application of coatings (Outdoor)

##### **1.2.2 Uses advised against:**

Not available.

#### **1.3 Details of the supplier of the safety data sheet:**

Supplier(Only representative): Chemical Inspection & Regulation Service Limited(Room 002, Regus Harcourt Centre D02 HW77, Dublin, Ireland)  
Supplier(Manufacturer): Hubei Xianlin Chemical Co., Ltd.  
Address: Dujiatai, Xiantao City Hubei Province China  
Contact person(E-mail): sales@hbxlchem.com  
Telephone: +86-27-83557255  
Fax: +86-27-83558390

#### **1.4 Emergency telephone Number:**

+353 (1) 477 3710

Available outside office hours?

YES

NO

### **Section 2 Hazards Identification**

#### **2.1 Classification of the substance/mixture**

##### **2.1.1 Classification:**

The substance is classified as following according to REGULATION (EC) No 1272/2008:

<b>REGULATION (EC) No 1272/2008</b>	
Hazard classes/Hazard categories	Hazard statement
Acute Tox. 3	H301
Acute Tox. 4	H312
Skin Irrit. 2	H315
Skin Sens. 1	H317
Eye Dam. 1	H318
STOT SE 3	H336
Carc. 1B	H350
STOT SE 1	H370
STOT RE 2	H373

For full text of H- phrases: see section 2.2.

## 2.2 label elements

### Hazard Pictograms:



### Signal Word(S):

Danger

### Hazard Statement:

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 (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

H370: Causes damage to organs (Affected organs: upper respiratory tract) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

H373: May cause damage to organs (Affected organs: blood) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

### Precautionary statement

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P260: Do not breathe dust/fume/ gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves/ protective clothing/eye protection/face protection/ hearing protection.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P302+P352: IF ON SKIN: Wash with plenty of water.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P311: IF exposed or concerned: Call a POISON CENTER/ doctor.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P310: Immediately call a POISON CENTER/doctor.

P312: Call a POISON CENTRE/ doctor if you feel unwell.

P314: Get medical advice/ attention if you feel unwell.

P330: Rinse mouth.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

## 2.3 Other hazards

The substance is not considered a PBT/vPvB.

## Section 3 Composition/information on ingredients

Substance/Mixture:

Substance

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Methyl Ethyl Ketoxime(MEKO)	01-2119539477-28-xxxx	96-29-7	202-496-6	99.5 % (w/w)
Water	/	7732-18-5	/	0.5%(w/w)

## Section 4 First aid measures

### 4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

#### 4.1.1 In case of inhalation:

Remove to fresh air.

#### 4.1.2 In case of skin contact:

After contact with skin, wash immediately with plenty of water.

#### 4.1.3 In case of eyes contact:

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

#### 4.1.4 In case of ingestion:

When swallowed, allow water to be drunk.

### 4.2 Most important symptoms and effects, both acute and delayed

Toxic if swallowed. Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause drowsiness or dizziness. May cause cancer. Causes damage to organs (Affected organs: upper respiratory tract). May cause damage to organs (Affected organs: blood) through prolonged or repeated exposure.

#### 4.3 Indication of any immediate medical attention and special treatment needed

If skin irritation or rash occurs, get medical advice/attention

### Section 5 Fire-Fighting measures

#### 5.1 Extinguishing media:

**Suitable extinguishing media:**

Foam, Carbon dioxide (CO<sub>2</sub>), Dry powder

**Unsuitable extinguishing media:**

Not available

#### 5.2 Special hazards arising from the substance or mixture

Emits toxic fumes under fire conditions. Combustible liquid.

**5.3 Special fire fighting methods and special protective actions for fire-fighters:**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

### Section 6 Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures:

**6.1.1 For non-emergency personnel:**

Ensure adequate ventilation. Remove all sources of ignition. Use personal protective equipment.

**6.1.2 For emergency responders:**

Use proper personal protective equipment as indicated in Section 8.

#### 6.2 Environmental Precautions:

Do not allow material to be released to the environment without proper governmental permits

#### 6.3 Methods for Containment and Cleaning up:

Soak up with inert absorbent material. Pick for disposal in tightly closed containers

#### 6.4 Reference to other sections:

See Section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

#### 6.5 Additional information:

Not available

### Section 7 Handling and storage

#### 7.1 Precautions for safe handling:

**7.1.1 Protective measures:**

Advice on safe handling: Exhaust ventilation at the object is necessary.

Advice on protection against fire and explosion: No special precautions required.

**7.1.2 Advice on general occupational hygiene:**

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

#### 7.2 Conditions for safe storage, including any incompatibilities:

Further information on storage conditions: Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from warmth. Containers should be protected against falling down.

#### 7.3 Specific end use(s):

Not applicable.

### Section 8 Exposure Controls/Personal Protection

#### 8.1 Control parameters:

**8.1.1 Occupational exposure limits:**

Not available

**8.1.2 Additional exposure limits under the conditions of use:**

Not available

**8.1.3 DNEL/DMEL and PNEC-Values:**

## DN(M)ELs for workers

Route	Type of effect	Hazard conclusion	Most sensitive endpoint
Inhalation	Systemic effects - Long-term	DMEL (Derived Minimum Effect Level): 28 µg/m <sup>3</sup>	carcinogenicity (By inhalation)
Inhalation	Systemic effects - Acute		
Inhalation	Local effects - Long-term	DNEL (Derived No Effect Level): 0.9 mg/m <sup>3</sup>	repeated dose toxicity
Inhalation	Local effects - Acute		
Dermal	Systemic effects - Long-term	DMEL (Derived Minimum Effect Level): 4 µg/kg bw/day	carcinogenicity (By inhalation)
Dermal	Systemic effects - Acute		acute toxicity (Dermal)
Dermal	Local effects - Long-term		
Dermal	Local effects - Acute		
Eyes	Local effects		

## DN(M)ELs for the general population

Route	Type of effect	Hazard conclusion	Most sensitive endpoint
Inhalation	Systemic effects - Long-term	DMEL (Derived Minimum Effect Level): 4.82 µg/m <sup>3</sup>	carcinogenicity (By inhalation)
Inhalation	Systemic effects - Acute		
Inhalation	Local effects - Long-term	DNEL (Derived No Effect Level): 0.43 mg/m <sup>3</sup>	repeated dose toxicity
Inhalation	Local effects - Acute		
Dermal	Systemic effects - Long-term		
Dermal	Systemic effects - Acute		
Dermal	Local effects - Long-term		
Dermal	Local effects - Acute		
Oral	Systemic effects - Long-term	DMEL (Derived Minimum Effect Level): 1.6 µg/kg bw/day	carcinogenicity (By inhalation)
Oral	Systemic effects - Acute		
Eyes	Local effects		

## PNEC

PNEC	Value	Assessment factor	Remarks/Justification
PNEC <sub>aqua - freshwater</sub> (mg/L)	0.256	10	Extrapolation method: assessment factor
PNEC <sub>aqua -marine water</sub> (mg /L)	0.026	100	
PNEC <sub>aqua - intermittent releases</sub> (mg /L)	0.118	100	Extrapolation method: assessment factor
PNEC <sub>fresh water sediment</sub> (mg/kg sediment dw )	1.012	N/A	
PNEC <sub>marine-sediment</sub> (mg/kg sediment dw )	0.101	N/A	
PNEC <sub>soil</sub> (mg/kg soil dw )	0.052	N/A	
PNEC <sub>stp</sub> (mg/L)	177	1	Extrapolation method: assessment factor

PNEC oral(mg/kg food )	N/A	N/A	
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## 8.2 Exposure controls

**8.2.1 Appropriate engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### 8.2.2 Individual protection measures, such as personal protective equipment:

**Eye/face protection:** Goggles

**Hand protection:** Glove material: Nitrile rubber. Break through time: > 480 min. Glove thickness: 0,4 mm. Camatril 730

Remarks: Supplementary note: The specifications are based on information and tests from similar substances by analogy. Due to varying conditions ( e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374. Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time. Manufacturer's directions for use should be observed because of great diversity of types . Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

**Body protection:** Protective suit

Protective measures: The Personal Protective Equipment must be in accordance with EN standards: respirator EN 136, 140, 149; safety glasses EN 166;

protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, safety shoes EN-ISO 20345. Do not breathe vapours/dust. Take off all contaminated clothing immediately. Avoid contact with skin and eyes.

**Respiratory protection:** In the case of dust or aerosol formation use respirator with an approved filter. P3

**Thermal hazards:** Wear suitable protective clothing to prevent heat.

**8.2.3 Environmental exposure controls:** Avoid discharge into the environment.  
This material and its container must be disposed of as hazardous waste.  
According to local regulations, Federal and official regulations.

## Section 9 Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	Liquid, clear colourless at 20°C and 101.3 kPa
<b>Odour:</b>	Not determined
<b>Odour threshold:</b>	Not determined
<b>PH:</b>	Not determined
<b>Melting point/range (°C):</b>	-29.5 °C at 101.3 kPa
<b>Boiling point/range (°C):</b>	152 °C at 101.3 kPa
<b>Initial boiling point and boiling range:</b>	Not determined
<b>Flash point (°C):</b>	62 °C at 1013 hPa
<b>Evaporation rate:</b>	Not determined
<b>Flammability(solid, gas)</b>	Not applicable for Liquid

<b>Upper/lower flammability or explosive limites</b>	Not determined
<b>Self-ignition temperature:</b>	315 °C at 1013 hPa
<b>Decomposition temperature:</b>	Not determined
<b>Vapour pressure (25°C):</b>	1.07 kPa at 20 °C
<b>Vapour density:</b>	Not determined
<b>Relative Density:</b>	0.92 at 20°C
<b>Water solubility (g/l):</b>	100000 mg/L at 25 °C
<b>n-Octanol/Water (log Po/w):</b>	Log Kow (Pow): 0.63 at 20 °C
<b>Viscosity:</b>	15mPa.s at 20 °C.
<b>Surface tension:</b>	30.29 mN/m at 16 °C
<b>Dissociation constant in water( pKa):</b>	The pKa of MEKO has been reported to be 12.45 at 24°C.

## 9.2. Other information:

<b>Flammability:</b>	non flammable
<b>Explosive properties :</b>	non explosive
<b>Oxidising properties :</b>	No Oxidising properties
<b>Granulometry :</b>	Not available
<b>Stability in organic solvents and identity of relevant degradation products :</b>	Not available

## Section 10 Stability and reactivity

<b>10.1 Reactivity:</b>	The substance is stable under normal storage and handling conditions.
<b>10.2 Chemical stability:</b>	Stable.
<b>10.3 Possibility of hazardous reactions:</b>	No dangerous reactions known.
<b>10.4 Conditions to avoid:</b>	Reactions with strong acids and alkalies , Oxidizing agents
<b>10.5 Incompatible materials:</b>	Strong oxidizing agents, strong acids, strong bases, peroxides.
<b>10.6 Hazardous decomposition products:</b>	nitrogen oxides (NOx), Carbon oxides

## Section 11 Toxicological information

### 11.1 Toxicokinetics, metabolism and distribution

Not available

### 11.2 Information on toxicological effects

#### Acute toxicity:

**LD50(Oral, Rat):** ca. 2326 mg/kg bw (male) based on: test mat.

**LD50(Dermal, Rabbit):** > 1000 mg/kg bw (male/female)

**LC50(Inhalation, Rat):** > 4.83 mg/L air (analytical) (male/female)

**Skin corrosion/Irritation:** Causes skin irritation.

**Serious eye damage/irritation:** Causes serious eye damage.

**Respiratory or skin sensitization:** May cause an allergic skin reaction.

**Germ cell mutagenicity:** Not classified

**Carcinogenicity:** May cause cancer.

**Reproductive toxicity:** Not classified

**STOT- single exposure:**

May cause drowsiness or dizziness. (Affected Organs: CNS)

Causes damage to organs (Affected organs: upper respiratory tract) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

**STOT-repeated exposure:**

May cause damage to organs (Affected organs: blood) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

**Aspiration hazard:**

Not classified

**Section 12 Ecological information****Toxicity:**

Acute toxicity		Time	Species	Method	Remarks
LC50	> 100 mg/L	96h	Fish	OECD 203	1 (reliable without restriction)
EC50	ca. 201 mg/L	48h	Daphnia	OECD 202	1 (reliable without restriction)
EC50	11.8 mg/L based on: growth rate ca. 6.09mg/L based on: biomass	72h	Algae	OECD 201	1 (reliable without restriction)

**Persistence and degradability:**

Biodegradation in water: inherently biodegradable

**Bioaccumulative potential:**

Not available

**Mobility in soil:**

Not available

**Results of PBT&vPvB assessment:**

The substance is not a PBT / vPvB substance.

**Other adverse effects:**

Not available

**Section 13 Disposal considerations****13.1 Waste treatment methods**

Dispose of the waste according to applicable local, state and federal regulations. Do not dispose of with household waste.

**13.2 Product / Packaging disposal:**

Product: Dispose according to legal requirements.

Packaging: Legal requirements are to be considered in regard of reuse or disposal of used packaging materials.

**Section 14 Transport information**

	Land transport(ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
<b>UN-Number:</b>	2810	2810	2810
<b>UN Proper shipping name:</b>	TOXIC LIQUID, ORGANIC, N.O.S. (Butanone oxime)	TOXIC LIQUID, ORGANIC, N.O.S. (Butanone oxime)	TOXIC LIQUID, ORGANIC, N.O.S. (Butanone oxime)
<b>Transport hazard Class:</b>	6.1	6.1	6.1
<b>Packaging group:</b>	III	III	III
<b>Environmental hazards:</b>	No	No	No
<b>Special precautions for user:</b>	See section 2.2	See section 2.2	See section 2.2
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	IBC03	IBC03	IBC03



## Section 15 Regulation information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant information regarding authorization: Not applicable.

Relevant information regarding restriction: Not applicable.

Other EU regulations: Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

Other National regulations: Not applicable

Chemical Safety Assessment has been carried out? YES  NO

## Section 16 Other information

### 16.1 Indication of changes

Version 1.1 Amended by EU No 2015/830

Version 2.0 Placed exposure scenarios in the Annex (eSDS)

### 16.2 Training instructions:

Not applicable.

### 16.3 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

### 16.4 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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