

Safety Data Sheet
According to Regulation (EU) No. 1907/2006, Annex II,
Amended by REGULATION (EU) No 453/2010,
According to Regulation (EU) No. 1272/2008

Mehtyl Ethyl Ketoxime

SDS Record Number: CSSS-TCO-010-110186

Printing date: 01/06/2011

Version 1.1

Revision date: 01/06/2011

1 Identification of the substance and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name: Mehtyl Ethyl Ketoxime
Additional identification: Not available
Identification of the product: CAS# 96-29-7; EC# 202-496-6
Index Number: 616-014-00-0
REACH registration No.: Not available

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

1.2.1 Identified uses:

Used as the intermediate in Organic Synthesis.

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
Supplier(Manufacturer): Jiangshan Taige Chemical Co.,Ltd.
Address: Jiangshan city, Zhejiang province, China
Contact person(E-mail): -
Telephone: +86-570-4165678
Fax: +86-570-4165333

1.4 Emergency telephone Number:

+353 41 980 6916

Available outside office hours?

YES

NO

2 Hazards Identification

2.1 Classification of the substance

2.1.1 Classification:

The substance is classified as following according to 67/548/EEC and REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Carc. 2	H351
Acute Tox. 4 *	H312
Eye Dam. 1	H318
Skin Sens. 1	H317

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

67/548/EEC	
Hazards characteristics	R-Phrases
Carc. Cat. 3	R40
Xn	R21
Xi	R41
-	R43

For full text of R- phrases: see section 16.

Safety Data Sheet
According to Regulation (EU) No. 1907/2006, Annex II,
Amended by REGULATION (EU) No 453/2010,
According to Regulation (EU) No. 1272/2008

Mehtyl Ethyl Ketoxime

SDS Record Number: CSSS-TCO-010-110186

Printing date: 01/06/2011

Version 1.1

Revision date: 01/06/2011

2.1.2 The most important adverse effects

2.1.2.1 The most important adverse physicochemical effects:

Not applicable.

2.1.2.2 The most important adverse human health effects:

Suspected of causing cancer.
Harmful in contact with skin.
Causes serious eye damage.
May cause an allergic skin reaction.

2.1.2.3 The most important adverse environmental effects:

Not applicable.

2.2 label elements

Hazard Pictograms:



Signal Word(S):

Danger

Hazard Statement:

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

Precautionary Statement:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P281: Use personal protective equipment as required.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
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 + P313: IF exposed or concerned: Get medical advice/attention.
P310: Immediately call a POISON CENTER or doctor/physician.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
P363: Wash contaminated clothing before reuse.
P405: Store locked up.
P501: Dispose of contents/container to ...

2.3 Other hazards

Not available (PBT,vPvB, Substance is an endocrine disruptor etc.)

3 Composition/information on ingredients

Substance/Mixture: Substance

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Mehtyl Ethyl Ketoxime	N/A	96-29-7	202-496-6	>99.5%

4 First aid measures

Safety Data Sheet
According to Regulation (EU) No. 1907/2006, Annex II,
Amended by REGULATION (EU) No 453/2010,
According to Regulation (EU) No. 1272/2008

Mehtyl Ethyl Ketoxime

SDS Record Number: CSSS-TCO-010-110186

Printing date: 01/06/2011

Version 1.1

Revision date: 01/06/2011

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 from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

4.1.2 In case of skin contact:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

4.1.3 In case of eyes contact:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

4.1.4 In case of ingestion:

Get medical aid. Wash mouth out with water.

4.2 Most important symptoms and effects, both acute and delayed

Suspected of causing cancer.

Harmful in contact with skin.

Causes serious eye damage.

May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

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

5 Fire-Fighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Foam, Carbon dioxide (CO₂), Dry powder

Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: carbon monoxide, carbon dioxide.

5.3 Advice for fire-fighters:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Combustible liquid.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Remove ignition sources. Provide adequate ventilation. Avoid inhalation of vapour or dust. Avoid skin and eye contact. Wear protective gloves/protective clothing/eye protection/face protection.

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:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container

Safety Data Sheet
According to Regulation (EU) No. 1907/2006, Annex II,
Amended by REGULATION (EU) No 453/2010,
According to Regulation (EU) No. 1272/2008

Mehtyl Ethyl Ketoxime

SDS Record Number: CSSS-TCO-010-110186

Printing date: 01/06/2011

Version 1.1

Revision date: 01/06/2011

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:

Absorb with liquid-binding materials (sand, sawdust, universal binders etc).
Don't use a brush or compressed air for cleaning surfaces or clothing.
Clear spills immediately.

7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Use only in a chemical fume hood.

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:

Store in a cool, dry place. Store in a tightly closed container.

7.3 Specific end use(s):

Not applicable.

8 Exposure control/personal protection

8.1 Control parameters:

8.1.1 Occupational exposure limits: Not listed

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection Wear chemical goggles.

Hand protection Wear appropriate protective gloves to prevent skin exposure.

Body protection Wear appropriate protective clothing to prevent skin exposure.

Respiratory protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

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.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Clear liquid

Colour: Clear, colorless to pale yellow

Safety Data Sheet
According to Regulation (EU) No. 1907/2006, Annex II,
Amended by REGULATION (EU) No 453/2010,
According to Regulation (EU) No. 1272/2008

Mehtyl Ethyl Ketoxime

SDS Record Number: CSSS-TCO-010-110186

Printing date: 01/06/2011

Version 1.1

Revision date: 01/06/2011

Odour:	characteristic odor	
Odour threshold:	Not available	
pH:	6.5 (114 g/l aq. sol.)	
Melting point/range (°C):	-30 deg C	
Boiling point/range (°C) :	>152 deg C	
Flash point (°C) :	60 deg C (140.00 deg F)	
Evaporation rate:	Not applicable	
Flammability (solid, gas);	Not available	
Ignition temperature (°C) :	Ca 315 deg C	
Upper/lower flammability/explosive limits:	Explosion Limits, lower	1.9 Vol %
	Explosion Limits, upper	12.3 Vol %
Vapour pressure (20°C) :	3.5hPa @20 deg C	
Vapour density:	Not determined	
Relative Density (25°C):	0.92	
Bulk density (kg/m ³) :	Not determined	
Water solubility (g/l) at 20°C :	114 g/l water (20°C)	
n-Octanol/Water (log Po/w) :	Not determined	
Auto-ignition temperature:	315 deg C (599.00 deg F)	
Decomposition temperature:	> 150 deg C	
Viscosity, dynamic (mPa s) :	15 mPa.s @ 20 deg C	
Explosive properties:	Not explosive	
Oxidising properties:	Not oxidising	

9.2. Other information:

Fat solubility(solvent– oil to be specified) etc:	Not available
Surface tension:	30.29 mN/m
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available

10 Stability and reactivity

10.1 Reactivity:

The substance is stable under normal storage and handling conditions.

10.2 Chemical stability:

The substance is stable under normal storage and handling conditions.

10.3 Possibility of hazardous reactions:

No dangerous reactions known.

10.4 Conditions to avoid:

Incompatible materials, ignition sources.

10.5 Incompatible materials:

Strong oxidizing agents, strong acids, strong bases, peroxides.

10.6 Hazardous decomposition products:

Nitrogen oxides, carbon monoxide, carbon dioxide.

Safety Data Sheet
According to Regulation (EU) No. 1907/2006, Annex II,
Amended by REGULATION (EU) No 453/2010,
According to Regulation (EU) No. 1272/2008

Mehtyl Ethyl Ketoxime

SDS Record Number: CSSS-TCO-010-110186

Printing date: 01/06/2011

Version 1.1

Revision date: 01/06/2011

11 Toxicological information

11.1 Toxicokinetics, metabolism and distribution

Non-human toxicological data:

MEKO-biotransformation appears to be more complex than previously proposed, with interacting steps and several enzyme systems involved. The first activating step (likely P450 dependent oxidation) may have only a minor and dose-dependent contribution to the overall biotransformation of MEKO. The postulated reductive bioactivation of 2-nitrobutane formed from MEKO likely represents a very minor pathway in overall MEKO metabolism or may not occur at all. Since the extent of oxidation of MEKO is dose-dependent it may be relevant only after exposure to high MEKO-doses. The results of these studies shed considerable doubt that MEKO liver tumours in male rats result from the formation of a DNA-reactive metabolite by the biotransformation pathways.

11.2 Information on toxicological effects

Acute toxicity:

LD50(Oral, Rat): 2,326 mg/kg
 LD50(Dermal Rabbit): <2000 mg/kg
 LC50(Inhalation, Rat): > 4.83 mg/L air

Skin corrosion/irritation: Not classified

Serious eye damage/irritation: Causes serious eye damage.

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

Germ cell mutagenicity: Not classified

Carcinogenicity: Suspected of causing cancer.

reproductive toxicity: Not classified

STOT- single exposure: Not classified

STOT-repeated exposure: Not classified

Aspiration hazard: Not classified

12 Ecological information

Toxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	560mg/l	48h	Fish	OECD 203	N/A	N/A
LC50	75100mg/l	48h	Daphnia	OECD 202	N/A	N/A
EC50	12.6mg/l	72h	Algae	OECD 201	N/A	Not classified
NOEC	>1mg/l	72h	Algae	OECD 201		

Persistence and degradability: Readily degradable

Bioaccumulative potential: BCF=0.5-0.6 2mg/l.

Mobility in soil: LogKoc=0.5 by calculation.

Results of PBT&vPvB assessment: Not applicable.

Other adverse effects: Not applicable.

Safety Data Sheet
According to Regulation (EU) No. 1907/2006, Annex II,
Amended by REGULATION (EU) No 453/2010,
According to Regulation (EU) No. 1272/2008

Mehtyl Ethyl Ketoxime

SDS Record Number: CSSS-TCO-010-110186

Printing date: 01/06/2011

Version 1.1

Revision date: 01/06/2011

13 Disposal considerations

13.1 Waste treatment methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

13.2 Product / Packaging disposal:

If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations. .

14 Transport information

	<i>Land transport (ADR/RID)</i>	<i>Sea transport (IMDG)</i>	<i>Air transport (ICAO/IATA)</i>
UN-Number:	Not regulated	Not regulated	Not regulated
UN Proper shipping name:	Not regulated	Not regulated	Not regulated
Transport hazard Class:	Not regulated	Not regulated	Not regulated
Packaging group:	Not regulated	Not regulated	Not regulated
Environmental hazards:	Not regulated	Not regulated	Not regulated
Special precautions for user:	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated	Not regulated	Not regulated

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

16 Other information

16.1 Indication of changes Version 1.1 Amended by EU No 453/2010

16.2 Relevant R- phrases (number and full text):

- R40 Limited evidence of a carcinogenic effect.
- R21 Harmful in contact with skin.
- R41 Risk of serious damage to the eyes.
- R43 May cause sensitization by skin contact.

16.3 Training instructions:

Not applicable.

16.4 Further information:

Safety Data Sheet
According to Regulation (EU) No. 1907/2006, Annex II,
Amended by REGULATION (EU) No 453/2010,
According to Regulation (EU) No. 1272/2008

Mehtyl Ethyl Ketoxime

SDS Record Number: CSSS-TCO-010-110186

Printing date: 01/06/2011

Version 1.1

Revision date: 01/06/2011

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

16.5 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.