

(Methyl Ethyl Ketoxime) DATE PREPARED: 5/12/2017

Section 1. Product and Company Identification

Product Name Methyl Ethyl Ketoxime

96-29-7 **CAS Number**

Parchem - fine & specialty chemicals

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CHEMTEL

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Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 4), H227 Acute toxicity, Dermal (Category 4), H312 Serious eye damage (Category 1), H318 Skin sensitization (Category 1), H317 Carcinogenicity (Category 2), H351

GHS Label Elements

Pictograms:



Signal word: DANGER

Hazard and precautionary statements **Hazard Statements**

H227 Combustible liquid.

H312 Harmful in contact with skin.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H351 Suspected of causing cancer.

Precautionary Statements

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/hot surfaces. - No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.



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

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

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.

P310 Immediately call a POISON CENTER or doctor/physician.

P322 Specific measures (see supplemental first aid instructions on this label).

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

P363 Wash contaminated clothing before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS: None

Section 3. Composition / Information on Ingredients

Common Name Methyl Ethyl Ketoxime **Synonym(s)** 2-Butanone Oxime

Formula C₄H₉NO CAS Number 96-29-7

COMPONENT	CAS NUMBER	CONCENTRATION
Methyl Ethyl Ketoxime	96-29-7	<= 100%

Section 4. First Aid Measures

Description of first-aid measures

General advice: Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin contact: Wash off with soap and plenty of water. Consult a physician.

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. **Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Indication of any immediate medical attention and special treatment needed: No data available



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Section 5. Firefighting Measures

Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Special hazards arising from the substance or mixture: Carbon oxides, Nitrogen oxides (NOx)

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: Use water spray to cool unopened containers

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

Reference to other sections: For disposal see section 13.

Section 7. Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge. For precautions see section 2.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section 8. Exposure Controls / Personal Protection

Control Parameters

Components with workplace control parameters



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Component	CAS-No.	Value	Control	Basis
			parameters	
2-Butanone	96-29-7	TWA	10.000000 ppm	USA. Workplace Environmental
oxime				Exposure Levels (WEEL)
	Remarks	Dermal Sensitization Notation		

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection: Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance: Clear, liquid

Color: colorless

Odor: No data available

Odor Threshold: No data available

pH: No data available

Melting point/freezing point: -29.5°C (-21.1°F) - OECD Test Guideline 102

Initial boiling point and boiling range

59 - 60°C (138 - 140°F) at 20 hPa (15 mmHg) - lit. 151 - 152°C (304 - 306°F) at 1,013 hPa (760 mmHg) - lit.



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Flash point (Closed cup): 61.97°C (143.55°F)

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapor pressure: < 11 hPa (< 8 mmHg) at 20°C (68°F)

Vapor density: 3.01 - (Air = 1.0)

Relative density: 0.924 g/cm3 at 25°C (77°F)

Water solubility: ca. 100 q/l at 25°C (77°F) - OECD Test Guideline 105 - soluble

Partition coefficient (n-Octanol/water): \log Pow: ca. 0.63 Auto-ignition temperature: 314 - 317°C (597 - 603°F)

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available **Oxidizing properties:** No data available

Other safety information

Dissociation constant: ca.12.45 at 25° C (77°F) **Relative vapor density:** 3.01 - (Air = 1.0)

Section 10. Stability and Reactivity

Reactivity: No data available

Chemical Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: No data available

Conditions to Avoid: Heat, flames, and sparks.

Incompatible Materials: Strong oxidizing agents, Strong acids

Hazardous Decomposition Products

Other decomposition products: No data available

In the event of fire: see section 5

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male: 2,326 mg/kg (OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female: > 4.83 mg/l (4h) (OECD Test Guideline 403)

Dermal: No data available

LD50 Subcutaneous - Rat: 2,702 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation



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(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Risk of serious damage to eyes.

(OECD Test Guideline 405)

Respiratory or skin sensitization

Buehler Test - Guinea pig May cause sensitization by skin contact. (OECD Test Guideline 406)

Germ cell mutagenicity

in vitro assay S. typhimurium Result: negative

Drosophila melanogaster - male

Result: negative

Carcinogenicity

Limited evidence of carcinogenicity in animal studies

IARC: No component of this product, present at levels greater than or equal to 0.1%, is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product, present at levels greater than or equal to 0.1%, is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product, present at levels greater than or equal to 0.1%, is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: No data available Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: No data available

Additional Information

Repeated dose toxicity - Rat - male - Drinking - No observed adverse effect level - 25 mg/kg Repeated dose toxicity - Rat - male and female - inhalation (vapor) - No observed adverse effect level - 0.009 mg/kg

RTECS: EL9275000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.



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Section 12. Ecological Information

Toxicity Toxicity to fish

Semi-static test LC50 - Oryzias latipes: > 100 mg/l (96 h)

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

Static test EC50 - Daphnia magna (Water flea): ca. 201 mg/l (48 h)

(OECD Test Guideline 202)

Toxicity to algae

Static test EC50 - Scenedesmus capricornutum (fresh water algae): ca. 11.8 mg/l (72

h) (OECD Test Guideline 201)

Persistence and degradability

Bioaccumulative potential

Bioaccumulation Cyprinus carpio (Carp): 42 d - 2 mg/l

Bioconcentration factor (BCF): 0.5 - 0.6 (OECD Test Guideline 305C)

Mobility in soil: No data available

Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety

assessment not required/not conducted

Other adverse effects: No data available

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT (US)

UN number: 1993

Class: 3

Packing group: III

Proper shipping name: Flammable Liquids, N.O.S. (2-Butanone Oxime)

Reportable Quantity (RQ): N/A Poison Inhalation Hazard: No

IMDG

UN number: 1993

Class: 3

Packing group: III



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EMS-No: F-E, S-E

Proper shipping name: Flammable Liquid, N.O.S. (2-Butanone Oxime)

IATA

UN number: 1993

Class: 3

Packing group: III

Proper shipping name: Flammable liquid, n.o.s. (2-Butanone oxime)

Section 15. Regulatory Information

SARA 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards: Fire Hazard, Acute Health Hazard

Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components

2-Butanone oxime (CAS-No. 96-29-7)

New Jersey Right to Know Components

2-Butanone oxime (CAS-No. 96-29-7)

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

HMIS Rating Health: 2

Flammability: 2 Reactivity: 0

NFPA Rating

Health: 2

Flammability: 2 Reactivity: 0



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Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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