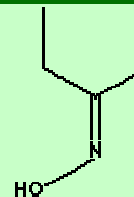


# METHYL ETHYL KETOXIME

## PRODUCT IDENTIFICATION

CAS NO.	96-29-7
EINECS NO.	202-496-6
FORMULA	C <sub>4</sub> H <sub>9</sub> NO
MOL WT.	87.12
H.S. CODE	2928.00
TOXICITY	



SYNONYMS MEK oxime; Ethyl methyl ketoxime; 2-Butanone oxime; 2-Butoxime; Butanone oxime; Ethyl-methylketonoxim; Pentan-2-one,oxime; Butan-2-one, oxime;

PRICE U\$5.50/kg CFR by sea for 1,000kgs quantity

## CLASSIFICATION

## PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Clear liquid
MELTING POINT	< -20 C
BOILING POINT	152 C
SPECIFIC GRAVITY	0.915 - 0.925
SOLUBILITY IN WATER	
AUTOIGNITION	
pH	6.5
VAPOR DENSITY	
NFPA RATINGS	Health: 2; Flammability: 1 ; Reactivity: 0
REFRACTIVE INDEX	
FLASH POINT	62 C
STABILITY	Stable under ordinary conditions

## GENERAL DESCRIPTION AND APPLICATIONS

Oxime is any compound with the general formula  $R'R/C=N-OH$ , where R and R' are hydrogen atoms or organic groups. Oximes are condensation products of hydroxylamines with aldehydes (forming aldoxime), ketones (forming ketoxime), or quonone. Aldoximes exist only as a *syn* isomer. But benzaldoxime (aromatic aldoximes) exist in *syn*- and *anti* isomers: the *syn* form melts at 34C, *anti*isomeric form at 130 C; both forms are soluble in ethanol and ether.

There are two geometrical isomer: *syn* and *anti* isomer (the term *syn-anti* isomerism is for stereoisomers by other atoms' unsaturated bond rather than carbon). Two isomers have very different properties. The conversion of oximes into corresponding amides, known as Beckmann rearrangement (usually using sulphuric acid as a catalyst), is used to make synthetic fiber monomers. Cyclohexanone oxime is converted into its isomer epsilon-caprolactam which is the raw material to make nylon-6. The amides obtained by Beckmann rearrangement can be converted into amines by hydrolysis, which are useful in the manufacture of dyes, plastics, synthetic fibres, and pharmaceuticals.

Oximes are used as a peel-preventing additive in paints and lacquers. It acts as an antioxidant against oxidative drying materials which forms sticky skin with air oxygen. The another effect of anti-skinning offers drying time delay which can be used in formulating paints.

Oximes are used as chemical building block for the synthesis of agrochemicals and

pharmaceuticals. In medicine application, Oxime structure is effective in cholinesterase reactivators to treat the poisoning by organophosphates. Example of these drugs are pralidoxime, obidoxime, methoxime, asoxime, and trimedoxime. Oxime moiety is found in some cephalosporin antibiotics. Diacetyl monoxime is used as an inhibitor of ATP-sensitive potassium ion channels.

Diacetyl (dimethylglyoxal) reacts with hydroxylamine to produce diacetyldioxime (dimethylglyoxime). The characteristic property of oxime is the scavenging free radical and oxygen. Diacetyl oxime is used as a chelating agent. An application example is the spectrophotometric determination of Co(II), Fe(II), Ni(II), Pd(II) and Re(VII) 1. Dimethylglyoxime reacts with a nickel salt in a green solution to generate a red colored insoluble tetradentate coordinate complex of nickel. It is used as a reagent for the colorimetric determination of urea and ureido compounds.

Oxime is used as a ligand in transition-metal complex catalyst chemistry. Oxime acts as an antioxidant, radical scavenger which find applications in textile, plastic, paint, detergent, and rubber industry.

#### SALES SPECIFICATION

APPEARANCE	Clear liquid
CONTENT	99.0% min
ACID VALUE	2 max (mg KOH/g)

#### TRANSPORTATION

PACKING	50kgs in drum
HAZARD CLASS	3 (Packing Group: III)
UN NO.	1915

#### OTHER INFORMATION

Hazard Symbols: XN, Risk Phrases: 21-40-41-43, Safety Phrases: 13-23B-26-36/37/39