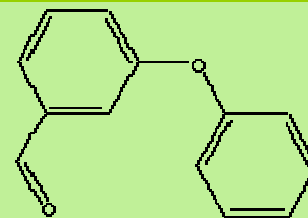


m-PHENOXY BENZALDEHYDE

PRODUCT IDENTIFICATION

CAS NO.	39515-51-0
EINECS NO.	254-487-1
FORMULA	C ₆ H ₅ OC ₆ H ₄ CHO
MOL WT.	198.22
H.S. CODE	
TOXICITY	Oral rat LD50: 1222 mg/kg
SYNONYMS	3-phenoxy benzaldehyde; m-(Phenyloxy)benzaldehyde;
ERIVATION	
CLASSIFICATION	



PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	light yellow liquid
MELTING POINT	13 C
BOILING POINT	
SPECIFIC GRAVITY	1.14 - 1.15
SOLUBILITY IN WATER	
SOLVENT SOLUBILITY	
pH	
VAPOR DENSITY	7.8
REFRACTIVE INDEX	
AUTOIGNITION	
NFPA RATINGS	Health: 1; Flammability: 1; Reactivity: 0
FLASH POINT	
STABILITY	Stable under ordinary conditions

APPLICATIONS

Phenoxy- is a prefix to indicate the presence of the group '-OC₆H₅', composed of phenyl and an atom of oxygen. Phenoxy compounds are precursors of antibiotics especially penicillins, plant growth regulators, and herbicides. They are used as intermediates for manufacturing dyes, pharmaceuticals, pesticides, fungicides, and flavoring agents. M-Phenoxy benzaldehyde is used to as an intermediate in making pesticides. (especially synthetic pyrethroids sch as cypermethrin and fenvalerate) and pharmaceuticals.

SALES SPECIFICATION

APPEARANCE	light yellow liquid
ASSAY	98.0% min
ACIDITY	0.5% max

TRANSPORTATION

PACKING	200kgs in drum
HAZARD CLASS	
UN NO.	

OTHER INFORMATION

Hazard Symbols: n/a, Risk Phrases: n/a, Safety Phrases: 24/25

GENERAL DESCRIPTION OF BENZALDEHYDE

Benzaldehyde(also called Benzenecarbonyl) is the simplest representative of the aromatic aldehydes. It is a colorless liquid aldehyde with a characteristic almond odor. It boils at 180°C, is soluble in ethanol, but is insoluble in water. Benzaldehyde is formed by partial oxidation of benzyl alcohol and readily oxidized to benzoic acid and is converted to addition products by hydrocyanic

acid or sodium bisulfite. It is also prepared by oxidation of toluene or benzyl chloride or by treating benzal chloride with an alkali, e.g., sodium hydroxide. It is used chiefly in the synthesis of other organic compounds, ranging from pharmaceuticals to plastic additives and benzaldehyde is an important intermediate for the processing of perfume and flavouring compounds and in the preparation of certain aniline dyes. It is the first step in the synthesis for fragrances. It undergoes simultaneous oxidation and reduction with alcoholic potassium hydroxide, giving potassium benzoate and benzyl alcohol. It is converted to benzoin with alcoholic potassium cyanide, with anhydrous sodium acetate and acetic anhydride, giving cinnamic acid. Compounds which do not have alpha-hydrogen atoms cannot form an enolate ion and do not undergo electrophilic alpha-substitution and aldol condensation. Aromatic aldehydes such as benzaldehyde and formaldehyde may undergo disproportionation in concentrated alkali (Cannizzaro's reaction); one molecule of the aldehyde is reduced to the corresponding alcohol and another molecule is simultaneously oxidized to the salt of a carboxylic acid. The speed of the reaction depends on the substituents in the aromatic ring. Two different types of aldehydes (aromatic and aliphatic) can undergo crossing reaction to form formaldehyde and aromatic alcohols.