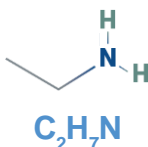


PRODUCT SAFETY SUMMARY



ETHYLAMINE

DECEMBER 2024

Chemical Name	Ethylamine
Chemical Category (if applicable)	Amine
Synonyms	MEA, Ethanamine, Mono-ethylamine or monoethylamine, Anhydrous Aminoethane
CAS Number	75-04-7
EC (EINECS) Number	200-834-7
Other identifier (Please specify)	IUPAC Name: Ethanamine

DESCRIPTION

- Ethylamine is a List I precursor substance under 21 CFR 1310.02, of the US Controlled Substance Act (CSA), and as such its manufacturing, distribution and use are under certain rigorous control, monitoring and restriction by the US Drug Enforcement Agency (**DEA**). More specifically, any type of manufacturing of it, its packaging, repackaging, labeling as well as all aspects of sales & distribution and downstream are subject to the regulations and limitations promulgated under the CSA. As such, any individuals, corporations, partnerships, associations or legal entities who manufacture, distribute, import, export such a substance, or who acts as a broker or trader for any international transactions involving ethylamine would be subject to the terms of the regulation, and as such required to register with the DEA as well as the pertinent state regulatory authorities, follow certain rules pertaining to hiring and employment of personnels who may participate in the handling of ethylamine in any capacity or come into contact during the course of their employment, physical security measures to prevent diversion of ethylamine, and maintain comprehensive records that are readily retrievable, filed chronologically, clearly marked and separated from other business records, for a period of time, in addition to reporting certain activities on a set frequency and whenever a deviation event is suspected.
- Ethylamine is a highly flammable (with ability to self-ignite at 385°C @ 1 atm), toxic, and corrosive chemical with many industrial applications, particularly in the synthesis of other chemicals, surfactants, and agricultural products. It is hazardous to human health, which, when coming into contact with persons, can cause severe burns to the skin, serious eye damage, and respiratory irritation. It is also known to be harmful or potentially harmful to a variety of aquatic life. As such, appropriate safety measures must be followed when handling, storing, and disposing of this chemical.
- Ethylamine is a colorless liquid or gas (boiling point 16.6°C at 1 atm) with an ammonia-like odor. It has a flash point of -18°C, a liquid density of 5.7 lb/gal, and a vapor density of 1.56, thus heavier than air. When burned, it produces toxic nitrogen oxides. Exposing containers of ethylamine to intense heat may cause them to rupture violently or explode.
- Workplace exposures to ethylamine during its manufacture and use, with careful control through process enclosures and local exhaust ventilation, and the use of personal protective equipment (PPE), are expected to be minimal. Good manufacturing and industrial hygiene practices, when carefully followed,

can further minimize and/or eliminate worker exposure. Worksite safety designed in accordance with recommended exposure limits and safety guidelines are recommended. For further details on prevention and reducing workplace exposure to ethylamine, refer to the Safety Data Sheet (SDS).

- Ethylamine is sold and/or distributed in liquified gas form. While it is generally stable under normal conditions of storage and use, the liquid and vapor of the substance are highly flammable. As such, ethylamine presents a dangerous fire hazard when exposed to heat, flame, sparks, or strong oxidizers. When heated, ethylamine is known to decompose and emit toxic fumes of oxides of nitrogen.
- The liquid form of ethylamine can cause first degree burns even upon brief exposure as it is corrosive to skin. When exposed to the eyes, workers may develop severe eye irritation and corneal edema. In studies, rabbits exposed to ethylamine via inhalation route, at a concentration of 50 ppm, suffered lung and corneal injuries, and when exposure via the same route to a concentration of 100 ppm, further suffered kidney injuries. The evaporating liquid of ethylamine can cause frostbite, and cause irritations to eyes and respiratory tract. Further, inhalation exposure to the fumes of a 70% aqueous solution has been known to cause chemical pneumonitis.

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This product safety summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to provide an in-depth discussion of all health and safety information. Additional information on the chemical is available through the applicable Safety Data Sheet which should be consulted before use of the chemical. The product safety summary does not supplant or replace required regulatory and/or legal communication documents. Statements concerning use of our products are made without warranty that any such use is free of patent infringement and are not recommendations to infringe any patent.

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