

MATERIAL SAFETY DATA SHEET

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Issue Date:

1- Chemical Product Information and Company Identification.

Product Name: : Ethylamine GC reference standard, AnStan[®].
Synonym: : Aminoethane.
Product code: : BS14420.
CAS Number: : 75-04-7.
Company Name: : Briti Scientific.
Company Address: : Plot No:78/B/13, SY-79,Phase-VI, Jeedimetla,Hyderabad-500 055.
Telangana, India.

Section 2- Composition / Information on Ingredients.

CAS No.	Chemical Name	Mol. Formula
75-04-7.	Aminoethane.	C ₂ H ₇ N.

Section 3- Hazards Identification.

Classification of the substance or mixture:

CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Physical hazards

Flammable liquids Category 2 (H225)

Health hazards

Acute oral toxicity Category 4 (H302)

Acute dermal toxicity Category 3 (H311)

Acute Inhalation Toxicity - Vapors Category 4 (H332)

Skin Corrosion/Irritation Category 1 A (H314)

Serious Eye Damage/Eye Irritation Category 1 (H318)

Specific target organ toxicity - (single exposure) Category 3 (H335)

Environmental hazards

Based on available data, the classification criteria are not met

Label elements

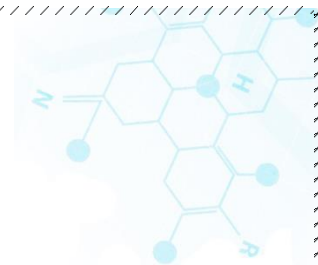


Signal Word Danger



USA: #1004, Boston, Massachusetts, 02116, United States. India: Jeedimetla, Hyderabad-500 055, Telangana.

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Hazard Statements

H225 - Highly flammable liquid and vapor

H311 - Toxic in contact with skin

H314 - Causes severe skin burns and eye damage

H335 - May cause respiratory irritation

H302 + H332 - Harmful if swallowed or if inhaled

Precautionary Statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower P280 - Wear protective gloves/protective clothing/eye protection/face protection

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

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

Other hazards

Toxic to terrestrial vertebrates

This product does not contain any known or suspected endocrine disruptors

Section 4- First Aid Measures.

General Advice: Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Skin Contact: Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation: If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove to fresh air. Immediate medical attention is required.

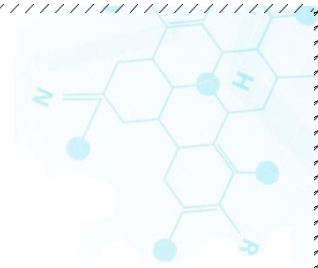
Ingestion: Do NOT induce vomiting. Call a physician or poison control center immediately.

Self-Protection of the First Aider: Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed: Causes burns by all exposure routes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Notes to Physician: Treat symptomatically





Section 5- Fire Fighting Measures.

Suitable Extinguishing Media: Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam. Water mist may be used to cool closed containers.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂)

Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

Section 6- Accidental Release Measures.

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental precautions

Should not be released into the environment.

Methods and material for containment and cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

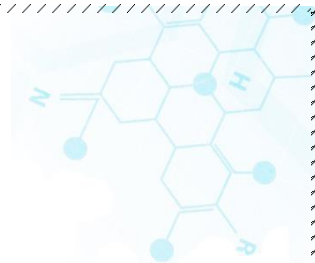
Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

Section 7- Handling and Storage.

Precautions for safe handling Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges





Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and flame. Flammables area. Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

Storage class

Storage class (TRGS 510): 3: Flammable liquids

Section 8- Exposure Control/Personal Protection.

Control parameters

Ingredients with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Ethylamine	75-04-7	TWA	2 ppm 3.8 mg/m ³	Australia. Workplace Exposure Standards for Airborne Contaminants.
		STEL	6 ppm 11 mg/m ³	Australia. Workplace Exposure Standards for Airborne Contaminants

Exposure controls

Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

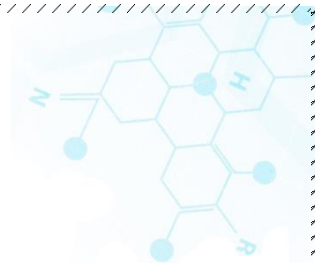
Full contact

Material: butyl-rubber

Minimum layer thickness: 0.7 mm

Break through time: 480 min





Material tested: Butoject® (KCL 898)

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Splash contact

Material: Latex gloves

Minimum layer thickness: 0.6 mm

Break through time: 30 min

Material tested: Lapren® (KCL 706 / Aldrich Z677558, Size M)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Section 9- Physical and Chemical Properties.

Appearance Colorless to Almost colorless clear liquid.

Odor Ammonia-like

Odor Threshold No information available

pH 12

Melting Point/Range -81 °C

Boiling Point/Range 17 °C.

Flash Point -17 °C / 1.4 °F

Evaporation Rate No information available

Flammability (solid,gas) Not applicable

Flammability or explosive limits

Upper 3 Vol%

Lower 12.8 Vol%

Vapor Pressure 423 hPa @ 20 °C

Density 0.81 g/ml.

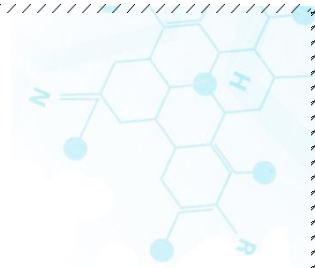
Solubility Soluble in methanol.

Partition coefficient; n-octanol/water No data available

Autoignition Temperature 375 °C / 707 °F

Decomposition Temperature No information available





Viscosity	No data available
Molecular Formula	C ₂ H ₇ N
Molecular Weight	45.07 g/mol.

Section 10- Stability and Reactivity.

Reactive Hazard: None known, based on information available

Stability: Stable under normal conditions.

Possibility of hazardous reactions

Hazardous Polymerization No information available.

Hazardous Reactions None under normal processing.

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition. Incompatible products

Incompatible materials

Strong acids. Metals. copper. Oxidizing agent. Peroxides

Hazardous decomposition products

Nitrogen oxides (NO_x). Carbon monoxide (CO). Carbon dioxide (CO₂)

Section 11- Toxicological Information.

Information on toxicological effects

Mixture

Acute toxicity

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

Dermal: No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

Remarks: Mixture causes serious eye damage.

Risk of blindness!

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

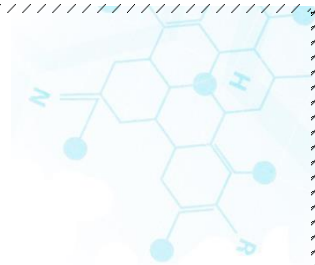
Carcinogenicity

No data available

Reproductive toxicity

No data available





Specific target organ toxicity - single exposure

Mixture may cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Acute toxicity

Oral: No data available

LC50 Inhalation - Rat - male and female - 4 h - 8.1 mg/l - gas

(OECD Test Guideline 403)

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Corrosive

Remarks: (ECHA)

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Test Type: Ames test

Test system: S. typhimurium

Result: negative

Remarks: (National Toxicology Program)

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

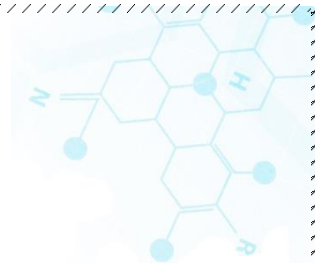
May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

Aspiration hazard

No data available





Section 12- Ecological Information.

Toxicity

Mixture

Toxicity to fish LC50 - *Leuciscus idus* (Golden orfe) - 240 mg/l - 96 h

Remarks: (External MSDS)

Toxicity to daphnia

and other aquatic

invertebrates

EC50 - *Daphnia magna* (Water flea) - 94 mg/l - 24 h

Remarks: (External MSDS)

Toxicity to bacteria ECO - *Pseudomonas putida* - 5.3 mg/l - 16 h

Persistence and degradability

Biodegradability Result: 60 - 70 % - Readily biodegradable.

(OECD Test Guideline 301F)

Biochemical Oxygen

Demand (BOD)

1,300 mg/g

Bio accumulative potential

No data available

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

Endocrine disrupting properties

No data available

Other adverse effects

Additional ecological

information

Harmful effect due to pH shift.

Discharge into the environment must be avoided.

Components

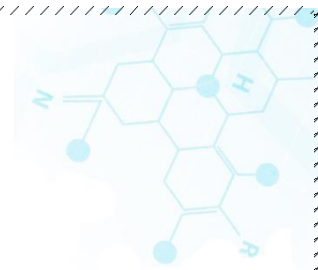
Ethylamine

Toxicity to fish static test LC50 - *Leuciscus idus* (Golden orfe) - > 500 mg/l - 96 h (DIN 38412 part 15)

Toxicity to daphnia and other aquatic invertebrates semi-static test LC50 - *Ceriodaphnia dubia* (water flea) - 2.9 mg/l - 48 h (US-EPA)

Toxicity to bacteria static test EC20 - activated sludge - 240 mg/l - 30 min (ISO 8192)





Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)

semi-static test NOEC - Ceriodaphnia dubia water flea) - 3.2 mg/l - 7 d (US-EPA)

Section 13- Disposal Considerations.

Waste treatment methods

Waste from Residues/Unused Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

Contaminated Packaging Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

European Waste Catalogue (EWC) According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

Other Information Waste codes should be assigned by the user based on the application for which the product was used. Do not flush to sewer. Can be landfilled or incinerated, when in compliance with local regulations. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Solutions with high pH-value must be neutralized before discharge.

Section 14- Transport Information.

IMDG/IMO

UN number	UN2270
UN proper shipping name	ETHYLAMINE, AQUEOUS SOLUTION
Transport hazard class(es)	3
Subsidiary Hazard Class	8
Packing group	II

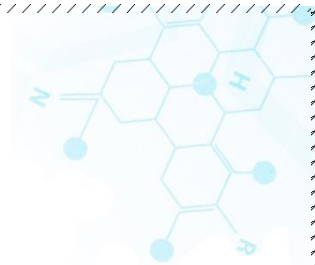
ADR

UN number	UN2270
UN proper shipping name	ETHYLAMINE, AQUEOUS SOLUTION
Transport hazard class(es)	3
Subsidiary Hazard Class	8
Packing group	II

IATA

UN number	UN2270
UN proper shipping name	ETHYLAMINE, AQUEOUS SOLUTION
Transport hazard class(es)	3
Subsidiary Hazard Class	8
Packing group	II





Environmental hazards No hazards identified
Special precautions for user No special precautions required.
Maritime transport in bulk according to IMO instruments
Not applicable, packaged goods

Section 15- Regulatory Information.

Safety, health and environmental regulations/legislation specific for the substance or mixture
Standard for the Uniform Scheduling of Medicines and Poisons : No poison schedule number allocated

Section 16- Other Information.

Briti Scientific provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

