

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/23/2014

Reviewed on 04/19/2013

## 1 Identification

### Product identifier

**Product name:** Ethylamine, 70% aq. soln.

**Stock number:** A15022, L10838

**Relevant identified uses of the substance or mixture and uses advised against.**

No further relevant information available.

**Identified use:** SU24 Scientific research and development

### Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

Alfa Aesar, A Johnson Matthey Company

Johnson Matthey Catalog Company, Inc.

30 Bond Street

Ward Hill, MA 01835-8099

Tel: 800-343-0660

Fax: 800-322-4757

Email: tech@alfa.com

www.alfa.com

**Information Department:** Health, Safety and Environmental Department

#### Emergency telephone number:

During normal hours the Health, Safety and Environmental Department at (800) 343-0660. After normal hours call Carechem 24 at (866) 928-0789.

## 2 Hazard(s) identification

### Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Irritant

R36/37: Irritating to eyes and respiratory system.



F; Highly flammable

R11: Highly flammable.

**Information concerning particular hazards for human and environment:** Not applicable

**Hazards not otherwise classified** No information known.

### Label elements

#### Labelling according to Regulation (EC) No 1272/2008

The product is classified and labeled according to the CLP regulation.

#### Hazard pictograms



GHS02



GHS07

**Signal word** Danger

#### Hazard statements

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

#### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**WHMIS classification**

B2 - Flammable liquid  
 D2B - Toxic material causing other toxic effects  
 E - Corrosive material

**Classification system****HMIS ratings (scale 0-4)****(Hazardous Materials Identification System)**

HEALTH	2	Health (acute effects) = 2
FIRE	3	Flammability = 3
REACTIVITY	1	Physical Hazard = 1

**Other hazards****Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures****Dangerous components:**

75-04-7	Ethylamine	70.0%
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Additional information None known.

**Non-Hazardous Ingredients**

7732-18-5	Water	30.0%
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### 4 First-aid measures

**Description of first aid measures****After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm.  
 Seek immediate medical advice.

**After skin contact**

Immediately wash with water and soap and rinse thoroughly.  
 Seek immediate medical advice.

**After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing** Seek medical treatment.

**Information for doctor****Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents** CO2, sand, extinguishing powder. Do not use water.

**Special hazards arising from the substance or mixture**

If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NOx)

Possibly Hydrogen cyanide (HCN)

**Advice for firefighters****Protective equipment:**

Wear self-contained respirator.

Wear fully protective impervious suit.

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**6 Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

**Environmental precautions:**

Do not allow material to be released to the environment without proper governmental permits.

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

**Methods and material for containment and cleaning up:**

Keep away from ignition sources.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

**Prevention of secondary hazards:** Keep away from ignition sources.**Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**7 Handling and storage****Handling****Precautions for safe handling**

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Keep away from heat and direct sunlight.

Ensure good ventilation at the workplace.

**Information about protection against explosions and fires:**

Protect from heat.

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

**Conditions for safe storage, including any incompatibilities****Storage****Requirements to be met by storerooms and receptacles:** Store in a cool location.**Information about storage in one common storage facility:** No information known.**Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Protect from heat and direct sunlight.

**Specific end use(s)** No further relevant information available.**8 Exposure controls/personal protection****Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**Control parameters****Components with limit values that require monitoring at the workplace:****75-04-7 Ethylamine (70.0%)**

PEL (USA)	Long-term value: 18 mg/m <sup>3</sup> , 10 ppm
REL (USA)	Long-term value: 18 mg/m <sup>3</sup> , 10 ppm
TLV (USA)	Short-term value: 28 mg/m <sup>3</sup> , 15 ppm Long-term value: 9 mg/m <sup>3</sup> , 5 ppm Skin
EL (Canada)	Short-term value: 15 ppm Long-term value: 5 ppm Skin
EV (Canada)	Short-term value: 15 ppm Long-term value: 5 ppm

**Additional information:** No data**Exposure controls****Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

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Avoid contact with the eyes.  
 Avoid contact with the eyes and skin.  
 Maintain an ergonomically appropriate working environment.  
**Breathing equipment:** Use suitable respirator when high concentrations are present.  
**Protection of hands:**  
 Impervious gloves  
 Check protective gloves prior to each use for their proper condition.  
 The selection of suitable gloves not only depends on the material, but also on quality.  
 Quality will vary from manufacturer to manufacturer.  
**Eye protection:** Safety glasses  
**Body protection:** Protective work clothing.

**9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Not determined
<b>Odor threshold:</b>	Not determined.

<b>pH-value:</b>	Not determined.
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**Change in condition**

<b>Melting point/Melting range:</b>	Not determined
<b>Boiling point/Boiling range:</b>	Not determined
<b>Sublimation temperature / start:</b>	Not determined

<b>Flash point:</b>	-17 °C (1 °F)
<b>Flammability (solid, gaseous)</b>	Not applicable.
<b>Ignition temperature:</b>	384 °C (723 °F)
<b>Decomposition temperature:</b>	Not determined
<b>Auto igniting:</b>	Product is not selfigniting.

<b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures is possible.
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**Explosion limits:**

<b>Lower:</b>	3.5 Vol %
<b>Upper:</b>	14.0 Vol %
<b>Vapor pressure at 20 °C (68 °F):</b>	1176 hPa (882 mm Hg)
<b>Density at 20 °C (68 °F):</b>	0.803 g/cm <sup>3</sup> (6.701 lbs/gal)
<b>Relative density</b>	Not determined.
<b>Vapor density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Fully miscible
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>dynamic:</b>	Not determined.
<b>kinematic:</b>	Not determined.

**Solvent content:**

<b>Organic solvents:</b>	0.0 %
<b>Other information</b>	No further relevant information available.

**10 Stability and reactivity**

**Reactivity** No information known.  
**Chemical stability** Stable under recommended storage conditions.  
**Thermal decomposition / conditions to be avoided:**  
 Decomposition will not occur if used and stored according to specifications.  
**Possibility of hazardous reactions** No dangerous reactions known  
**Incompatible materials:**  
 Oxidizing agents  
 No information known.  
**Hazardous decomposition products:**  
 Carbon monoxide and carbon dioxide  
 Nitrogen oxides  
 Possibly Hydrogen cyanide (HCN)

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**11 Toxicological information****Information on toxicological effects****Acute toxicity:**

The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.

**LD/LC50 values that are relevant for classification:****75-04-7 Ethylamine**

Oral	LD50	400 mg/kg (rat)
Dermal	LD50	390 mg/kg (rabbit)

**Skin irritation or corrosion:** Corrosive effect on skin and mucous membranes.

**Eye irritation or corrosion:**

Strong corrosive effect.

Causes serious eye irritation.

**Sensitization:** No sensitizing effects known.

**Germ cell mutagenicity:** No effects known.

**Carcinogenicity:**

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

**Reproductive toxicity:** No effects known.

**Specific target organ system toxicity - repeated exposure:** No effects known.

**Specific target organ system toxicity - single exposure:** May cause respiratory irritation.

**Aspiration hazard:** No effects known.

**Additional toxicological information:**

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

**12 Ecological information****Toxicity**

**Aquatic toxicity:** No further relevant information available.

**Persistence and degradability** No further relevant information available.

**Behavior in environmental systems:**

**Bioaccumulative potential** No further relevant information available.

**Mobility in soil** No further relevant information available.

**Additional ecological information:****General notes:**

Do not allow material to be released to the environment without proper governmental permits.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Avoid transfer into the environment.

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**Other adverse effects** No further relevant information available.

**13 Disposal considerations****Waste treatment methods**

**Recommendation** Consult state, local or national regulations to ensure proper disposal.

**Uncleaned packagings:**

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information****UN-Number**

DOT, ADR, IMDG, IATA

UN2270

**UN proper shipping name**

DOT

Ethylamine, aqueous solution

ADR

2270 Ethylamine, aqueous solution

IMDG, IATA

ETHYLAMINE, AQUEOUS SOLUTION

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**Transport hazard class(es)****DOT**

**Class** 3 Flammable liquids.  
**Label** 3+8  
**ADR**



**Class** 3 (FC) Flammable liquids  
**Label** 3+8  
**IMDG, IATA**



**Class** 3 Flammable liquids.  
**Label** 3+8

**Packing group**

**DOT, ADR, IMDG, IATA** II

**Environmental hazards:**

**Marine pollutant (IMDG):** No

**Special precautions for user**

Warning: Flammable liquids

**Danger code (Kemler):**

338

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

**Transport/Additional information:****DOT**

**Marine Pollutant (DOT):** No

**UN "Model Regulation":**

UN2270, Ethylamine, aqueous solution, 3 (8), II

**15 Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**National regulations**

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

**SARA Section 313 (specific toxic chemical listings)**

None of the ingredients are listed.

**California Proposition 65****Prop 65 - Chemicals known to cause cancer**

None of the ingredients are listed.

**Prop 65 - Developmental toxicity**

None of the ingredients are listed.

**Prop 65 - Developmental toxicity, female**

None of the ingredients are listed.

**Prop 65 - Developmental toxicity, male**

None of the ingredients are listed.

**Information about limitation of use:**

For use only by technically qualified individuals.

This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.

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**Other regulations, limitations and prohibitive regulations****Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.

**REACH - Pre-registered substances**

All ingredients are listed.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**16 Other information**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

**Department issuing SDS:** Health, Safety and Environmental Department.**Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

USA