

Safety Data Sheet

COMMISSION REGULATION (EU) NO 2015/830 OF 1st June 2015

Amending Annex II of Regulation EU No 453/2010

Revision No-07

Printing Date 25/08/2020

Product Name – 2-(2-aminoethoxy)ethanol

Revision Date- 24/08/2020

1. Identification Of the Substance

1.1 Product Identifier

- **Product Name:** 2-(2-aminoethoxy) ethanol
- **Synonym:** Diethyleneglycolamine
- **Trade Name:** Aldega 105
- **Cas No:** 929-06-6
- **E.C No:** 213-195-4

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

- No further relevant Information available

1.3 Details of the supplier of the safety data sheet :

- Manufacturer/Supplier

Alkyl Amines Chemicals Ltd
401-407, Nirman Vyapar Kendra, Plot No-10
Sect- 17, Vashi, Navi Mumbai- 400 703

- e-mail address of the competent person responsible for Safety data sheet :

rsattigeri@alkylamines.com

- Informing Dept : R&D

- **Emergency Contact No :** +91 2117 235175/235222 , **Mobile No :** +919881973507 / +91 9423002721

- **Emergency Contact No for US only :** +1 703 527 3887 / 800 424 9300

1.4 Emergency Contact No : As mentioned above

2. Hazard Identification

2.1 Classification of the Substance

- Classification According to Regulation EC No 1272/2008



Skin Corrosion Cat. 1B , H314 - Causes Severe skin burns and eye damage.

Eye Damage Cat.1 H318 – Causes serious eye damage

2.2 Label elements

- Labelling According Regulation EC No : 1272/2008

The substance is classified according to CLP regulation



Signal word- Danger

H314- Causes severe skin burns and eye damage

- **Precautionary Statements –**

Prevention:

P280 - Wear protective gloves/protective clothing/eye protection/face protection

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Response:**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.**P303+P361+P353 IF ON SKIN(or hair)**-Take off immediately all contaminated clothing. Rinse skin with water/ shower.**P301+P330+P331 IF SWALLOWED** - Rinse mouth. Do NOT induce vomiting.**Storage:****P405:** Store locked up**Disposal:****P501:** Dispose of contents/container in accordance with local/regional/national/international regulations.**-2.3 Other Hazards****Results of PBT and vPvB assessment****PBT**- Not Applicable**vPvB**- Not Applicable**3.Composition/Information on Ingredients**

Description	CAS No	EC No	Content (% w/w)
2-(2-aminoethoxy)ethanol	929-06-6	213-195-4	>99.0 % w/w

Molecular Formula – C₄H₁₁NO₂**Molecular Wt**- 105.14**4.First- Aid Measures****--4.1 Description of first aid measures****- General information:**

Immediately remove any clothing contaminated by the product.

Take affected persons into the open air.

Do not leave affected persons unsupervised.

Personal protection for the person providing first aid.

-After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness bring patient into stable side position for transport.

.-After skin contact:

Instantly rinse with water.

Cover wound with a sterile dressing.

Seek medical treatment.

- After eye contact:.

Rinse opened eye for several minutes under running water.

Use eye protection.

Call a doctor immediately.

- After swallowing:

Rinse the mouth immediately and then drink copious amounts of water .Provide fresh air. Instantly call for doctor.

Do not induce vomiting - Danger of perforation!

- 4.2 Most important symptoms and effects, both acute and delayed: No further relevant information available.**- 4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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5. Fire Fighting Measures

-5.1 Extinguishing media

-Suitable extinguishing agents : Water, dry extinguishing media ,foam, carbon dioxide.

-For safety reasons unsuitable extinguishing agents :None

-5.2 Special hazards arising from the substance or mixture

Flammable gases

Nitrogen Oxides (NO_x)

Carbon Oxides (CO and CO₂)

-5.3 Advice for fire-fighters :

Protective equipment: Wear self contained breathing apparatus and chemical protective clothing .

Additional information

Cool endangered containers with water spray jet.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6. Accidental release Measures

-6.1 Personal precautions, protective equipment and emergency procedures :

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Use breathing protection against the effects of fumes/dust/aerosol.

Avoid contact with skin and eyes.

-6.2 Environmental precautions :

Damp down gases/fumes/haze with water spray jet.

Do not allow to enter drainage system, surface or ground water.

Inform respective authorities in case product reaches water or sewage system.

-6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

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

Use neutralizing agent e.g weak acid solution

Dispose of the material collected according to regulations

-6.4 Ref to other section :

See Section 8 for information on personal protection equipment.

7. Handling and Storage

-7.1 Precautions for safe handling :

Ensure good ventilation/exhaustion at the workplace.

Do not inhale vapours/aerosols.

Avoid skin and eye contact under any circumstances.

Make sure that all applicable workplace limits are observed.

Information about protection against explosions and fires:

The product forms flammable fumes when heated.

Keep ignition sources away - Do not smoke.

Protect from heat.

- 7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers:

Store under shade at ambient temperature (<45°C) & dry conditions in well-sealed containers.

Observe all local and national regulations for storage of water polluting products.



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Information about storage in one common storage facility:*Do not store together with oxidizing and acidic materials.***Further information about storage conditions:***Store container in a well ventilated place.**Protect from heat and direct sunlight.***7.3 Specific end use(s)** *No further relevant information available.***8. Exposure Control/Personal Protection****· 8.1 Control parameters****· Components with critical values that require monitoring at the workplace:** *Not required.***· Additional information:** *The lists that were valid during the compilation were used as basis.***· 8.2 Exposure controls****· Personal protective equipment****· General protective and hygienic measures***Keep away from foodstuffs, beverages and food.**Instantly remove any contaminated garments.**Do not eat, drink or smoke while working.**Avoid contact with the eyes and skin.**Do not inhale gases / fumes / aerosols.**Wash hands during breaks and at the end of the work.***· Breathing equipment:***Use breathing protection in case of insufficient ventilation.**If all workplace limits are observed and good ventilation is ensured, no special precautions necessary.***· Protection of hands:***Protective gloves**Check the permeability prior to each renewed use of the glove.**The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.**Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.**To avoid skin problems reduce the wearing of gloves to the required minimum.***· Material of gloves***Butyl rubber - BR**Recommended thickness of the material: ≥ 0.7 mm**The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.***· Penetration time of glove material***Penetration time: ≥ 8 hours**The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.***· As protection from splashes gloves made of the following materials are suitable:***Nitrile rubber - NBR**Recommended thickness of the material: ≥ 0.4 mm**Penetration time: ≥ 4 min.***· Eye protection:** *Tightly sealed safety glasses***· Body protection:***Use protective suit.**Boots*

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9. Physical and Chemical Properties**- 9.1 Information on Basic physical and Chemical Properties**

Appearance/Physical state /colour	Colourless to yellowish liquid
Explosive limit Upper	15.5 Vol %
lower	2.0 Vol %
Odour	Ammonia like
Vapour pressure	0.2 Pa @ 25 °C
Odour Threshold	No data available
Vapour density	No data available
PH (10% in water)	10.2 @ 20 °C
Density	1.0600 g/cm ³ @ 20°C
Melting point/freezing point	-12 to -11 °C
Solubility in water	Fully miscible
Initial Boiling Point/Boiling Range	218 -224 °C
Flash Point	127 °C
Evaporation Rate	No data available
Flammability (solid, gas)	Not Applicable
Partition Coefficient : n-Octanol Water	Log Pow= -1.89
Auto ignition Temperature	370°C
Decomposition temperature	No data available
Viscosity- dynamic	43.9 m Pa s @ 25 °C
Kinematic	No data available
Danger of Explosion	Product is not explosive. However, formation of explosive air/vapour mixtures is possible.

--9.2 Other information- No further information available**10. Stability and Reactivity****-10.1 Reactivity****10.2 Chemical stability****Thermal decomposition / conditions to be avoided:**

Take precautionary measures against static discharge.

Sources of ignition

- 10.3 Possibility of hazardous reactions

Strong exothermic reaction with acids.

Flammable vapour-air mixtures may develop.

- 10.4 Conditions to avoid No further relevant information available.**- 10.5 Incompatible materials:**

Strong oxidizing agents

Acids

- 10.6 Hazardous decomposition products:Nitrogen oxides (NO_x)Carbon monoxide (CO) and Carbon dioxide (CO₂)

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11. Toxicological Information**-11.1 Information on Toxicological Effects****Acute Toxicity****LD50/LC50 values that are relevant for classification**

LD 50 Oral	3000 mg/kg (rat, female) 3700 mg/kg (rat, male) 3400 mg/kg (rat)
LD 50 Dermal	> 3000 mg/kg (Rabbit)
LC 50 Inhalation	No mortality with in exposure period of 8 hrs. Animal studies show that Inhalation of highly saturated vapour-air mixture represents no acute hazard.

-Primary Irritant effect ;**Assessment:** Corrosive, damages skin and eyes.**Skin irritation/corrosion :**

Test conducted on species (rabbits) shows substance to be corrosive.

Eye irritation :

Test results show risk of serious damage to eyes.

Sensitization;

No skin sensitization effects were observed in the animal tests..

Genetic Toxicity :

The substance was not found to be mutagenic in animal tests.

Carcinogenicity :

No component of this substance greater than or equal to 0.1% was identified to be probable/possible/confirmed carcinogenic by IARC.

Repeated Dose toxicity :

Repeated dose induced corrosion in test animals

Symptoms of exposure :

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

12. Ecological Information**-12.1 Toxicity****Aquatic toxicity**

EC50/17 h	110 mg/l (pseudomonas putida)
EC50/48 h (static)	189 mg/l (water flea (daphnia magna)) (OECD 202)
ErC50/72 h (static)	202.4 mg/l (algae (Desmodesmus subspicatus))
LC50/96 h (static)	460 mg/l (leuciscus idus) (DIN 38412 part 15)

-12.2 Persistence and degradability Easily biodegradable**Other information:** Biodegradability 84% in 28 days (OECD 302B)**-12.3 Bio-accumulative potential**

log P(o/w): -1.89

Due to low distribution coefficient n-octanol/water, an accumulation in organisms is not expected.

-12.4 Mobility in soil No further relevant information available.**Additional ecological information:****General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water**-12.5 Results of PBT and vPvB assessment**

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PBT: Not applicable.**vPvB:** Not applicable.**-12.6 Other adverse effects** No further relevant information available.**13. Disposal Consideration****-13.1 Waste treatment methods****Recommendation** Disposal must be made according to official regulations.**Waste disposal key number:** According to local/national regulations.**European waste catalogue:**

Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

Un-cleaned packaging:**Recommendation:** Disposal must be made according to official regulations. Decontamination of drums shall be done initially by rinsing by 5% aqueous acetic acid solution followed by water washing till neutral PH. It is strongly recommended to disfigure the container/drum before disposal.**14. Transport Information**

	Section	ADR	IATA	IMDG
UN Number	14.1	3055	3055	3055
UN Proper Shipping Name	14.2	2-(2-Aminoethoxyethanol)	2-(2-Aminoethoxyethanol)	2-(2-Aminoethoxyethanol)
Transport Hazard Class (es)	14.3	8	8	8
Subsidiary Risk		Not Applicable	Not Applicable	Not Applicable
Packing Group	14.4	III	III	III
Environmental Hazard/Marine Pollutant	14.5	No	No	No
Special Precautions for User	14.6	No data available	No data Available	Corrosive liquid
ADR Tunnel restriction code		3(E)	Not Applicable	Not Applicable
Classification code		C7	Not Applicable	Not Applicable
HIN		80	Not Applicable	Not Applicable
EMs		Not Applicable	Not Applicable	F-A , S-B
Transportation in Bulk according to Annex II of Marpol and IBC code	14.7	Not Applicable	Not Applicable	As described below



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Product Name		-	-	2-(2-Aminoethoxyethanol)
Ship Type		-	-	3
Pollution Category		-	-	Z

15. Regulatory Information

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

- **National regulations**
- **Information about limitation of use:** Employment restrictions concerning young persons must be observed.
- **Decree to be applied in case of technical fault:** Directive 96/82/EC does not apply.
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **Other regulations, limitations and prohibitive regulations**
Observe restrictions on the marketing and use according to Annex XVII of Regulation (EC) No 1907/2006.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16. Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Dept. issuing MSDS- R&D**Only Representative : Global Product Compliance (Europe)AB, Lund , Sweden****e-mail:** sk@reach-onlyrep.eu info@gpcregulatory.com**Abbreviations and acronyms:**

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

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) **ICAO:** International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent.

LD50: Lethal dose, 50 percent

Ref-

- 1) Regulation (EC)No 1272/2008 of the European Parliament and of the Council
- 2) Guidance on the compilation Safety Data Sheet publish by ECHA Ver. 2.1 Feb 2014
- 3) Toxnet HSDB
- 4) Chem-watch Gold MSDS
- 5) European Chemicals Agency, <http://echa.europa.eu/>