

### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830 Issue date: 24/11/2015 Revision date: 19/05/2022 Supersedes version of: 02/02/2022 Version: 5.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product form : Substance

Substance name : MONOETHANOLAMINE PURE Chemical name : 2-aminoethanol; ethanolamine

 IUPAC name
 : 2-aminoethanol

 EC Index-No.
 : 603-030-00-8

 EC-No.
 : 205-483-3

 CAS-No.
 : 141-43-5

REACH registration No : 01-2119486455-28 Product group : Raw material

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

#### 1.2.1. Relevant identified uses

No additional information available

### 1.2.2. Uses advised against

No additional information available

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

Central Chemical Supplies Limited

44 Hall Road

BT66 7LJ Donaghcloney Craigavon

Northern Ireland

T 02838881936 - F 02838882335

Info@ccsni.co.uk - www.centralchemicalsupplies.co.uk

### 1.4. Emergency telephone number

Emergency number : +447872501842

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	Only for healthcare professionals

#### SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazardous to the aquatic environment - Chronic Hazard, Category 2

Acute toxicity (oral), Category 4

Acute toxicity (dermal), Category 4

Acute toxicity (inhal.), Category 4

Acute toxicity (inhal.), Category 4

Acute toxicity (inhalation:dust,mist) Category 4

H332

Skin corrosion/irritation, Category 1, Sub-Category 1A

H314

Serious eye damage/eye irritation, Category 1

H318

Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Full text of H- and EUH-statements: see section 16

Specific concentration limits:

H411

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( 5 ≤ C ≤ 100) STOT SE 3, H335

#### Adverse physicochemical, human health and environmental effects

Harmful in contact with skin. Harmful if inhaled. Harmful if swallowed. May cause respiratory irritation. Causes severe skin burns and eye damage. Causes serious eye damage. Toxic to aquatic life with long lasting effects.

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

GHS05 GHS07 GHS09

Signal word (CLP) : Danger

Contains : 2-AMINOETHANOL

Hazard statements (CLP) : H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.

H314 - Causes severe skin burns and eye damage.

H335 - May cause respiratory irritation.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

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

protection.

P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.

### 2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

### **SECTION 3: Composition/information on ingredients**

### 3.1. Substances

Substance type : Mono-constituent

Name : MONOETHANOLAMINE PURE

CAS-No. : 141-43-5 EC-No. : 205-483-3 EC Index-No. : 603-030-00-8

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-AMINOETHANOL	CAS-No.: 141-43-5 EC-No.: 205-483-3 EC Index-No.: 603-030-00-8	100	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 Skin Corr. 1B, H314

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
2-AMINOETHANOL	CAS-No.: 141-43-5 EC-No.: 205-483-3 EC Index-No.: 603-030-00-8	( 5 ≤C ≤ 100) STOT SE 3, H335

Full text of H- and EUH-statements: see section 16

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#### 3.2. Mixtures

Not applicable

#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a

doctor if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a

physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

### **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing. Do not breathe

dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

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### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Use only

outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapours/spray.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this

product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

### 8.1.1 National occupational exposure and biological limit values

MONOETHANOLAMINE PURE (141-43-5)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	2-Aminoethanol	
IOEL TWA [ppm]	1 ppm	
IOEL STEL	7.6 mg/m³	
IOEL STEL [ppm]	3 ppm	
Remark	Skin	
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC	
United Kingdom - Occupational Exposure Limits		
Local name	2-Aminoethanol	
WEL TWA (OEL TWA) [1]	2.5 mg/m <sup>3</sup>	
WEL TWA (OEL TWA) [2]	1 ppm	
WEL STEL (OEL STEL)	7.6 mg/m³	
WEL STEL (OEL STEL) [ppm]	3 ppm	
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	
2-AMINOETHANOL (141-43-5)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	2-Aminoethanol	
IOEL TWA [ppm]	1 ppm	
IOEL STEL	7.6 mg/m³	
IOEL STEL [ppm]	3 ppm	

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2-AMINOETHANOL (141-43-5)		
Remark	Skin	
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC	
United Kingdom - Occupational Exposure Limits		
Local name	2-Aminoethanol	
WEL TWA (OEL TWA) [1]	2.5 mg/m³	
WEL TWA (OEL TWA) [2]	1 ppm	
WEL STEL (OEL STEL)	7.6 mg/m³	
WEL STEL (OEL STEL) [ppm]	3 ppm	
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)	
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE	

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

#### Personal protective equipment symbol(s):







#### 8.2.2.1. Eye and face protection

### Eye protection:

Safety glasses

### 8.2.2.2. Skin protection

### Skin and body protection:

Wear suitable protective clothing

### Hand protection:

Protective gloves

### 8.2.2.3. Respiratory protection

### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

#### 8.2.2.4. Thermal hazards

No additional information available

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#### 8.2.3. Environmental exposure controls

#### **Environmental exposure controls:**

Avoid release to the environment.

#### **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Molecular mass : 61.08 g/mol Source: pubchem

Colour : Colourless.

Odour : Characteristic odour.
Odour threshold : No data available

pH : 12

Relative evaporation rate (butylacetate=1) : No data available

Melting point : 10

Freezing point : No data available Boiling point : 169 - 171 °C Flash point : 95 °C Auto-ignition temperature : 420

Decomposition temperature : No data available Flammability (solid, gas) : Not applicable

Vapour pressure : 0.488 hPa Temp.: 25 °C

Relative vapour density at 20 °C : 0.5
Relative density : 1.02

Density : 1.02 g/cm³ Type: 'density' Temp.: 20 °C
Solubility : Water: 100 g/100ml at 25°C Source: HSDB

Partition coefficient n-octanol/water (Log Pow) : -1.31 Source: ICSC Viscosity, kinematic : 18.578 mm²/s

Viscosity, dynamic : 18.95 cP Source: ECHA
Explosive properties : No data available
Oxidising properties : No data available
Upper explosive limit (UEL) : 5.5 – 17 % Source: ICSC

### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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#### **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Harmful in contact with skin.

Acute toxicity (inhalation) : Harmful if inhaled. Harmful if inhaled.

MONOETHANOLAMINE PURE (141-43-5)	
LD50 oral rat	1089 mg/kg Source: OECD SIDS
LD50 dermal rabbit	2504 mg/kg Source: OECD SIDS
LC50 Inhalation - Rat (Vapours)	> 1487 mg/l Source: ECHA

Skin corrosion/irritation : Causes severe skin burns.

pH: 12

Serious eye damage/irritation : Causes serious eye damage.

pH: 12

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation.

STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

### **MONOETHANOLAMINE PURE (141-43-5)**

Viscosity, kinematic 18.578 mm<sup>2</sup>/s

#### **SECTION 12: Ecological information**

### 12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term : Not classified

(acute)

Hazardous to the aquatic environment, long-term : Toxic to aquatic life with long lasting effects.

(chronic)

Not rapidly degradable

MONOETHANOLAMINE PURE (141-43-5)	
LC50 - Fish [1]	170 mg/l Source: OECD SIDS
EC50 - Crustacea [1]	32.6 mg/l
ErC50 algae	2.1 mg/l Source: ECHA

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

MONOETHANOLAMINE PURE (141-43-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.31 Source: ICSC

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

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### 12.6. Other adverse effects

No additional information available

#### SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

### **SECTION 14: Transport information**

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 2491	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping	name			
ETHANOLAMINE	Not regulated	Not regulated	Not regulated	Not regulated
Transport document descript	tion			
UN 2491 ETHANOLAMINE, 8, III, (E), ENVIRONMENTALLY HAZARDOUS	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard cla	iss(es)			
8	Not regulated	Not regulated	Not regulated	Not regulated
***	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
III	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazar	ds			
Dangerous for the environment: Yes	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information a	available			

### 14.6. Special precautions for user

### **Overland transport**

Classification code (ADR) : C7 Limited quantities (ADR) : 51 : E1 Excepted quantities (ADR)

: P001, IBC03, LP01, R001 Packing instructions (ADR)

Mixed packing provisions (ADR) : MP19 Portable tank and bulk container instructions (ADR) : T4 Portable tank and bulk container special provisions : TP1

(ADR)

Tank code (ADR) : L4BN Vehicle for tank carriage : AT Transport category (ADR) : 3 Special provisions for carriage - Packages (ADR) : V12 Hazard identification number (Kemler No.) : 80

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Orange plates :

80 2491

Tunnel restriction code (ADR) : E EAC code : 2X

#### Transport by sea

Not regulated

### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

#### **SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

MONOETHANOLAMINE PURE is not on the REACH Candidate List

MONOETHANOLAMINE PURE is not on the REACH Annex XIV List

MONOETHANOLAMINE PURE is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 july 2012 concerning the export and import of hazardous chemicals.

MONOETHANOLAMINE PURE is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

MONOETHANOLAMINE PURE is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### **SECTION 16: Other information**

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value

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Abbreviations and acronyms:		
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
vPvB	Very Persistent and Very Bioaccumulative	
ED	Endocrine disrupting properties	

Full text of H- and EUF	Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	

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Full text of H- and EUH-statements:	
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.