

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name

Process KS

Product no.

-

REACH registration number

Not applicable

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

Relevant identified uses of the substance or mixture

Rust protection

Uses advised against

-

The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet

Company and address

Blue & Green AB
Stenorsvägen 52
261 44 Landskrona
Sweden
Tfn: +46 418 399000
Fax: +46 418 13199
www.blueandgreen.se

E-mail

info@blueandgreen.se

SDS date

2020-11-19

SDS Version

1.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service). See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Corr. 1B; H314

Eye Dam. 1; H318

STOT SE 3; H335

See full text of H-phrases in section 2.2.

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

Causes severe skin burns and eye damage. (H314)

May cause respiratory irritation. (H335)

According to EC-Regulation 2015/830

Precautionary statements

General	-
Prevention	Do not breathe mist/vapours/fume/spray. (P260). Wear eye protection/protective clothing/protective gloves. (P280).
Response	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. (P303+P361+P353). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338).
Storage	Store in a well-ventilated place. Keep container tightly closed. (P403+P233).
Disposal	Dispose of contents/container to an approved waste disposal plant. (P501).

Identity of the substances primarily responsible for the major health hazards

2-aminoethanol

Additional labelling

Not applicable

Unique formula identifier (UFI)

4PU9-4SWE-600J-D4Q4

2.3. Other hazards

Not applicable

Additional warnings

Not applicable

VOC (volatile organic compound)

Not applicable

SECTION 3: Composition/information on ingredients

3.1/3.2. Substances/Mixtures

NAME:	2-aminoethanol
IDENTIFICATION NOS.:	CAS-no: 141-43-5 EC-no: 205-483-3 REACH-no: 01-2119486455-28 Index-no: 603-030-00-8
CONTENT:	15 - <25%
CLP CLASSIFICATION:	Acute Tox. 4, STOT SE 3, Skin Corr. 1B H302, H312, H314, H332, H335
NOTE:	O L

(*) O = Organic solvent L = European occupational exposure limit. See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

ATEmix(inhale, vapour) > 20
ATEmix(dermal) > 2000
ATEmix(oral) > 2000
Eye Cat. 1 Sum = Sum(Ci/S(G)CLi) = 5.3336 - 8.0004
Skin Cat. 2 Sum = Sum(Ci/S(G)CLi) = 16 - 24

Detergent:

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. The doctor can contact The National Poisons Information Service: Dial 0344 892 0111 (24 h service). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Bring the person into fresh air and stay with him/her.

Skin contact

Immediately remove contaminated clothing and shoes. Ensure that skin, which has been exposed to the material, is washed thoroughly with soap and water.

Eye contact

Remove contact lenses. Flush eyes with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing.

According to EC-Regulation 2015/830

Ingestion

In the case of ingestion, contact a doctor immediately and bring the safety data sheet or label. If the person is conscious, give them water. DO NOT try to induce vomiting, unless this is recommended by a doctor. Hold head facing down to prevent vomit returning to the mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Not applicable

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

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs.

Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

IF exposed or concerned: Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist.

5.2. Special hazards arising from the substance or mixture

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous catabolic substances are produced. These are: Nitrogen oxides. Carbon oxides. Fire will result in dense black smoke. Exposure to combustion products may harm your health. Fire fighters should wear appropriate protection equipment.

Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation of vapours from spilled material. Avoid direct contact with spilled substances.

6.2. Environmental precautions

No specific requirements.

6.3. Methods and material for containment and cleaning up

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

6.4. Reference to other sections

See section on "Disposal considerations" in regard of handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Smoking, storage of tobacco, consumption and storage of food or liquids are not allowed in the workrooms. See section on 'Exposure controls/personal protection' for information on personal protection. Avoid direct contact with the product.

7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Storage temperature

No data available.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

According to EC-Regulation 2015/830

OEL

2-aminoethanol

Long-term exposure limit (8-hour TWA reference period): 1 ppm | 2,5 mg/m³

Short-term exposure limit (15-minute reference period): 3 ppm | 7.6 mg/m³

Comments: Sk (Sk = Can be absorbed through skin.)

DNEL / PNEC

DNEL (2-aminoethanol): 1 mg/kg bw/d

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-aminoethanol): 3.3 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-aminoethanol): 3.3 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Local effects - Workers

DNEL (2-aminoethanol): 0.24 mg/kg bw/d

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-aminoethanol): 2 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-aminoethanol): 2 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Local effects - General population

DNEL (2-aminoethanol): 3.75 mg/kg bw/d

Exposure: Oral

Duration of Exposure: Long term – Systemic effects - General population

PNEC (2-aminoethanol): 0.085 mg/l

Exposure: Freshwater

PNEC (2-aminoethanol): 0.0085 mg/l

Exposure: Marine water

PNEC (2-aminoethanol): 0.434 mg/kg dw

Exposure: Freshwater sediment

PNEC (2-aminoethanol): 0.0434 mg/kg dw

Exposure: Marine water sediment

PNEC (2-aminoethanol): 1.29 mg/kg dw

Exposure: Soil

PNEC (2-aminoethanol): 100 mg/l

Exposure: Sewage Treatment Plant

PNEC (2-aminoethanol): 0.028 mg/l

Exposure: Intermittent release

8.2. Exposure controls

Compliance with the accepted occupational exposure limits values should be controlled on a regular basis.

General recommendations

Observe general occupational hygiene standards.

Exposure scenarios

There is no appendix to this safety data sheet.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Ensure emergency eyewash and -showers are clearly marked.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

According to EC-Regulation 2015/830

Keep containment materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment



Generally

Use only CE marked protective equipment.

Respiratory Equipment

Recommended: K. Green

Skin protection

Dedicated work clothing should be worn. Wear a protective suit in the event of prolonged periods of work with the product.

Hand protection

Nitrile rubber

Breakthrough time: > 480 minutes (Class 6)

Eye protection

Wear safety glasses with side shields.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	Liquid
Colour	Colourless
Odour	Characteristic
Odour threshold (ppm)	No data available.
pH	12,2
Viscosity (40°C)	No data available.
Density (g/cm ³)	1015

Phase changes

Melting point (°C)	No data available.
Boiling point (°C)	100
Vapour pressure	No data available.
Decomposition temperature (°C)	No data available.
Evaporation rate (n-butylacetate = 100)	No data available.

Data on fire and explosion hazards

Flash point (°C)	>100
Ignition (°C)	No data available.
Auto flammability (°C)	No data available.
Explosion limits (% v/v)	No data available.
Explosive properties	No data available.

Solubility

Solubility in water	Soluble
n-octanol/water coefficient	No data available.

9.2. Other information

Solubility in fat (g/L)	No data available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in the section "Handling and storage".

10.3. Possibility of hazardous reactions

Nothing special

10.4. Conditions to avoid

Nothing special

10.5. Incompatible materials

According to EC-Regulation 2015/830

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Substance: 2-aminoethanol
Species: Rat
Test: LD50
Route of exposure: Dermal
Result: 2504 mg/kg

Substance: 2-aminoethanol
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 1089 mg/kg

Substance: 2-aminoethanol
Species: Rat
Test: LD50
Route of exposure: Inhalation
Result: 1478 mg/m³

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Data on substance: 2-aminoethanol

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

Long term effects

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

SECTION 12: Ecological information

12.1. Toxicity

Substance: 2-aminoethanol
Species: Daphnia
Test: NOEC
Duration: 21d
Result: 0.85 mg/l

Substance: 2-aminoethanol
Species: Daphnia
Test: EC50
Duration: 48h
Result: 65 mg/l

Substance: 2-aminoethanol
Species: Fish
Test: LC50
Duration: 96h
Result: 349 mg/l

Substance: 2-aminoethanol
Species: Algae

According to EC-Regulation 2015/830

Test: EC50
Duration: 72h
Result: 2.5 mg/l

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
2-aminoethanol	Yes	DOC Die-Away Test	>90%

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
2-aminoethanol	No	-1.91	No data available

12.4. Mobility in soil

2-aminoethanol: Log Koc= -1.434129, Calculated from LogPow ().

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Other adverse effects

Nothing special

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

Waste

EWC code
07 06 04* other organic solvents, washing liquids and mother liquors

Specific labelling

Not applicable

Contaminated packing

Contaminated packaging must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 – 14.4

This product is within scope of the regulations of transport of dangerous goods.

ADR/RID

14.1. UN number	2491
14.2. UN proper shipping name	ETHANOLAMINE or ETHANOLAMINE SOLUTION
14.3. Transport hazard class(es)	8
14.4. Packing group	III
Notes	-
Tunnel restriction code	E

IMDG

UN-no.	2491
Proper Shipping Name	ETHANOLAMINE or ETHANOLAMINE SOLUTION
Class	8
PG*	III
EmS	F-A, S-B
MP**	No
Hazardous constituent	-

IATA/CAO

UN-no.	2491
Proper Shipping Name	ETHANOLAMINE or ETHANOLAMINE SOLUTION
Class	8
PG*	III

14.5. Environmental hazards

-

14.6. Special precautions for user

-

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

No data available

(*) Packing group

(**) Marine pollutant

SECTION 15: Regulatory information

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

According to EC-Regulation 2015/830

Restrictions for application

People under the age of 18 shall not be exposed to this product cf. Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

Demands for specific education

-

Additional information

Not applicable

Seveso

-

Biocidal reg. no.

Not applicable

Sources

Council Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677. The Stationery Office, 2002.

Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents.

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP).

Regulation (EC) 1907/2006 (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H302 - Harmful if swallowed.

H312 - Harmful in contact with skin.

H314 - Causes severe skin burns and eye damage.

H332 - Harmful if inhaled.

H335 - May cause respiratory irritation.

The full text of identified uses as mentioned in section 1

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Additional label elements

Not applicable

Other

In accordance with Regulation (EC) No. 1272/2008 (CLP) the evaluation of the classification of the mixture is based on:

The classification of the mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The safety data sheet is validated by

David Löwenstein

**Date of last essential change
(First cipher in SDS version)**

-

**Date of last minor change
(Last cipher in SDS version)**

-

According to EC-Regulation 2015/830

