

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 09.01.2017

Version number 109

Revision: 09.01.2017

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

- 1.1 Product identifier

- Trade name **Cleaner 10**

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

No further relevant information available.

- **Application of the substance / the mixture** Cleaning agent / Cleaner

- 1.3 Details of the supplier of the safety data sheet

- **Manufacturer/Supplier:**

PERKUTE - Maschinenbau GmbH

Düsterbergstr. 10

D-48432 Rheine

Tel. ++ 49 / 59 71 / 80 81 68 - 0

Fax ++ 49 / 59 71 / 80 81 68 - 1

E-Mail: info@perkute.de

- **Informing department:** Product safety department

- 1.4 Emergency telephone number:

Poison Control Center, Mainz

Tel. 00 49 / 61 31 / 19 240

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture

- **Classification according to Regulation (EC) No 1272/2008**

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

STOT SE 3 H335 May cause respiratory irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- 2.2 Label elements

- **Labelling according to Regulation (EC) No 1272/2008**

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

- **Hazard pictograms**



GHS05 GHS07

- **Signal word** Danger

- **Hazard-determining components of labelling:**

2-aminoethanol

- **Hazard statements**

H312+H332 Harmful in contact with skin or if inhaled.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

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.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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P312 Call a POISON CENTER/doctor if you feel unwell.
 P403 Store in a well-ventilated place.
 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.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of the substances listed below with harmless additions (aqueous solution).

- **Dangerous components:**

CAS: 141-43-5	2-aminoethanol	50-100%
EINECS: 205-483-3	Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312;	
Reg.nr.: 01-2119486455-28	Acute Tox. 4, H332; STOT SE 3, H335; Aquatic Chronic 3, H412	

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General advice:**
 Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
 In case of unconsciousness bring patient into stable side position for transport.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact**
 Instantly wash with water and soap and rinse thoroughly. If skin irritation persists, seek medical advice.
- **After eye contact**
 Rinse immediately opened eye for several minutes under running water. Then consult doctor.
- **After swallowing**
 Rinse out mouth and then drink plenty of water.
 Do not induce vomiting; instantly call for medical help.
- **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.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
 CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
 Formation of toxic gases is possible during heating or in case of fire.
 Can be released in case of fire:
 Nitrogen oxides (NO_x)
 carbon monoxide (CO)

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- **5.3 Advice for firefighters**
- **Protective equipment:**
Put on breathing apparatus.
See section 8.
Wear full protective suit with self-contained breathing apparatus.
- **Additional information**
Endangered containers in the surrounding area should be cooled with a water-hose.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment and keep unprotected persons away.
Ensure adequate ventilation
- **6.2 Environmental precautions:**
Do not allow to enter drainage system, surface or ground water.
If large amounts are released, the authorities must be informed.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 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 information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Keep containers tightly sealed.
Ensure good ventilation/exhaustion at the workplace. Avoid repeated or long-term skin contact.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage** Store in cool, dry conditions in well sealed containers.
- **Requirements to be met by storerooms and containers:**
Observe official regulations on storage and handling of water hazardous substances
Store in original containers or in PE-containers.
Not suitable filter material: aluminum, copper, zinc.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Storage class** 8 B L (VCI - Konzept, 2007)
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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- 8.1 Control parameters**- Components with critical values that require monitoring at the workplace:****141-43-5 2-aminoethanol (50-100%)**

WEL	Short-term value: 7.6 mg/m ³ , 3 ppm
	Long-term value: 2.5 mg/m ³ , 1 ppm
	Sk

- DNELs**141-43-5 2-aminoethanol**

Oral	DNEL (population)	3.75 mg/kg bw/day (Long-term - systemic effects)
Dermal	DNEL (worker)	1 mg/kg bw/day (Long-term - systemic effects)
	DNEL (population)	0.24 mg/kg bw/day (Long-term - systemic effects)
Inhalative	DNEL (worker)	3.3 mg/m ³ (Long-term - systemic and local effects)
	DNEL (population)	2 mg/m ³ (Long-term - systemic and local effects)

- PNECs**141-43-5 2-aminoethanol**

PNEC aqua	0.085 mg/l (fresh water)
	0.0085 mg/l (marine water)
PNEC	0.035 mg/kg dw (soil)
PNEC sediment	0.425 mg/kg dw (fresh water)
	0.0425 mg/kg dw (marine water)
PNEC STP	100 mg/l (sewage treatment plant)

- 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 food, beverages and fodder.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Gases, fumes and aerosols should not be inhaled.

- Breathing equipment:

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

- Recommended filter device for short term use:

Filter A

Combination filter A-P2

- Protection of hands: Protective gloves.**- Material of gloves**

Butyl rubber, BR

Nitrile rubber, NBR

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

Material of gloves is recommended for a short-term single use to protect from splashes. For permanent usage contact manufacturer of gloves.

- For the permanent contact gloves made of the following materials are suitable:

Chloropren rubber (CR), 0,5 mm coating thickness (recommended: protective index 6, corresponding > 480 minutes of permeation time according to EN 374).

Attention! Due to conditions (stressing, temperature) the practical usage of chemical protective gloves may

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be much shorter than the permeation time according to EN 374.

- **Eye protection:** Tightly sealed safety glasses.

- **Body protection:**

Standard protective working clothes, chemical resistant safety-shoes or wellingtons. If skin contact is possible, wear impenetrable protective clothing.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Fluid
Colour:	Colourless
Smell:	Characteristic

- **pH-value (10 g/l) at 20 °C:** ~ 11.2

- **Change in condition**

Melting point/Melting range: Not determined

Boiling point/Boiling range: ≥ 100 °C

- **Flash point:** Product is non-flammable nor potentially explosive

- **Self-inflammability:** Product is not selfigniting.

- **Danger of explosion:** Product is not potentially explosive

- **Density at 20 °C** ~ 1.03 g/cm³

- **Solubility in / Miscibility with**

Water: Fully miscible

- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.

- **10.2 Chemical stability**

- **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

- **10.3 Possibility of hazardous reactions** No dangerous reactions known

- **10.4 Conditions to avoid** No further relevant information available.

- **10.5 Incompatible materials:**

Strong acids

strong oxidizing agents

- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**

- **Acute toxicity**

Harmful in contact with skin or if inhaled.

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- LD/LC50 values that are relevant for classification:
141-43-5 2-aminoethanol

Oral	LD50	1515 mg/kg (rat)
Dermal	LD50	1025 mg/kg (rbt)

- Primary irritant effect:
- Skin corrosion/irritation

Causes severe skin burns and eye damage.

- Serious eye damage/irritation

Causes severe skin burns and eye damage.

- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.

- Carcinogenicity Based on available data, the classification criteria are not met.

- Reproductive toxicity Based on available data, the classification criteria are not met.

- STOT-single exposure

May cause respiratory irritation.

- STOT-repeated exposure Based on available data, the classification criteria are not met.

- Aspiration hazard Based on available data, the classification criteria are not met.

* SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity:
141-43-5 2-aminoethanol

LC 50 / 96 h	150 mg/l (Oncorhynchus mykiss)
	170 mg/l (Carassius auratus)
LC 50 / 48 h	224 mg/l (Leuciscus idus)
EC 50 / 48 h	65 mg/l (Daphnia magna)
EC 50 / 72 h	15 mg/l (Scenedesmus subspicatus)
	2.5 mg/l (Selenastrum capricornutum)

- 12.2 Persistence and degradability
141-43-5 2-aminoethanol
Biodegradability 90-100 % (OECD 301 F)

- Other information: The product is readily biodegradable.

- 12.3 Bioaccumulative potential No bioaccumulation

- 12.4 Mobility in soil No further relevant information available.

- Ecotoxicological effects:
- Remark: Harmful effect on fish, plankton and other waterorganism by pH shift possible.

- Respiratory inhibition of communal activated sludge EC 20 (mg/l according to ISO 8192 B):
141-43-5 2-aminoethanol

EC 20	> 1000 mg/l (OECD 209 / ISO 8192)
EC 50 / 17 h	110 mg/l (Pseudomonas putida)

- Additional ecological information:
- General notes:

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

Water hazard class 1 (Self-assessment): slightly hazardous for water.

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- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
The following advice is related to new material and not to any processed products. In case of a mixture with other products other disposal methods may become necessary. If in doubt seek advice from product supplier or from local authorities.
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Waste disposal key number:**
Since 01/01/99 the waste code numbers have not only been product-related but are also essentially application-related. The valid waste code number of the application can be obtained from the European waste catalogue.
- **Uncleaned packagings:** Disposal must be made according to official regulations.
- **Recommendation:**
Containers may be completely emptied and cleaned and send to be reconditioned or recycled.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

- 14.1 UN-Number - ADR, IMDG, IATA	UN2491
- 14.2 UN proper shipping name - ADR - IMDG, IATA	2491 ETHANOLAMINE, SOLUTION ETHANOLAMINE SOLUTION
- 14.3 Transport hazard class(es) - ADR - Class - Label	8 (C7) Corrosive substances. 8
- IMDG, IATA - Class - Label	8 Corrosive substances. 8
- 14.4 Packing group - ADR, IMDG, IATA	III
- 14.5 Environmental hazards: - Marine pollutant:	No
- 14.6 Special precautions for user - Kemler Number: - EMS Number: - Segregation groups	Warning: Corrosive substances. 80 F-A,S-B Alkalis
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

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- Transport/Additional information:**- ADR****- Limited quantities (LQ)**

5L

- Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

- Transport category

3

- Tunnel restriction code

E

- IMDG**- Limited quantities (LQ)**

5L

- Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

- UN "Model Regulation":

UN2491, ETHANOLAMINE, SOLUTION, 8, III

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**- Labelling according to Regulation (EC) No 1272/2008**

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

- Hazard pictograms

GHS05 GHS07

- Signal word Danger**- Hazard-determining components of labelling:**

2-aminoethanol

- Hazard statements

H312+H332 Harmful in contact with skin or if inhaled.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

- Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

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.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P403 Store in a well-ventilated place.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

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- **National regulations**
- **Information about limitation of use:**
Employment restrictions concerning young persons must be observed.
- **Other regulations, limitations and prohibitive regulations**
International Inventories
All of the components in the product are on the following Inventory lists:
TSCA (United States), Europe (EINECS / ELINCS).
- **15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Application:** *Directions for use: please refer to the Technical Information Sheet*
- **Relevant phrases**
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.
H412 Harmful to aquatic life with long lasting effects.
- **Department issuing data specification sheet:** *see item 1: Informing department*
- **Abbreviations and acronyms:**
RPE: Respiratory Protective Equipment
RCR: Risk Characterisation Ratio (RCR= PEC/PNEC)
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
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)
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)
TRGS: Technische Regeln für Gefahrstoffe (Technical Rules for Dangerous Substances, BAuA, Germany)
ISO: International Organisation for Standardisation
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
- *** Data compared to the previous version altered.**

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