

## 1 Identification

\* **Product identifier**

\* **Trade name:** Flexoclean Ultrasonic Cleaner

\* **Article number:** 2215

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

\* **Details of the supplier of the safety data sheet**

\* **Manufacturer/Supplier:**

Clean Solutions Group  
Bliek 8  
4941 SG Raamsdonksveer - NL  
Tel.: +31 (0)162 - 57 6 222  
Email: info@cleansolutionsgroup.eu  
Website: www.cleansolutionsgroup.eu

Distributor:  
The Provident Group  
2319 East Pensar Drive  
Appleton, WI 54911  
Tel.: 1-920-733-5415  
Email: info@providentgrp.com

\* **Emergency telephone number:**

Clean Solutions Group: +31 (0)162 - 57 62 29  
ChemTel LLC  
(800) 255-3924 ( North America)  
+1 (813) 248-0585 ( International)  
National Capital Poison Center: 1-800-222-1222  
These services are only available to health professionals

## 2 Hazard(s) identification

\* **Classification of the substance or mixture**

Corrosive to Metals 1 H290 May be corrosive to metals.  
Skin Corrosion 1A H314 Causes severe skin burns and eye damage.  
Eye Damage 1 H318 Causes serious eye damage.

\* **Label elements**

\* **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

\* **Hazard pictograms**



GHS05

\* **Signal word** Danger

\* **Hazard-determining components of labeling:**

POTASSIUM HYDROXIDE  
2-aminoethanol

\* **Hazard statements**

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

\* **Precautionary statements**

P264 Wash thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

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**Safety Data Sheet**  
 acc. to OSHA HCS

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P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

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.

P363 Wash contaminated clothing before reuse.

\* **Other hazards**\* **Results of PBT and vPvB assessment**\* **PBT:** Not applicable.\* **vPvB:** Not applicable.

### 3 Composition/information on ingredients

\* **Chemical characterization: Mixtures**\* **Description:** Mixture of the substances listed below with nonhazardous additions.\* **Dangerous components:**

1310-58-3	POTASSIUM HYDROXIDE ⚠ Skin Corrosion 1A, H314; ⚠ Acute Toxicity - Oral 4, H302	5-10%
141-43-5	2-aminoethanol ⚠ Skin Corrosion 1A, H314; Eye Damage 1, H318; ⚠ Acute Toxicity - Oral 4, H302; Acute Toxicity - Dermal 4, H312; Acute Toxicity - Inhalation 4, H332; Specific Target Organ Toxicity - Single Exposure 3, H335	1-5%
164462-16-2	TRISODIUM DICARBOXYMETHYLALANINATE ⚠ Corrosive to Metals 1, H290	1-5%

### 4 First-aid measures

\* **Description of first aid measures**\* **General information:** Immediately remove any clothing soiled by the product.\* **After inhalation:**
 In case of unconsciousness place patient stably in side position for transportation.  
 Supply fresh air; consult doctor in case of complaints.
\* **After skin contact:** Immediately rinse with water.\* **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.\* **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.\* **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:** Use fire fighting measures that suit the environment.\* **Special hazards arising from the substance or mixture** No further relevant information available.\* **Advice for firefighters**\* **Protective equipment:** No special measures required.

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## 6 Accidental release measures

- \* **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- \* **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- \* **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralizing agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- \* **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.
- \* **Protective Action Criteria for Chemicals**

### \* PAC-1:

1310-58-3	POTASSIUM HYDROXIDE	0.18 mg/m <sup>3</sup>
141-43-5	2-aminoethanol	6 ppm
111-76-2	butyl cellosolve	60 ppm
7758-29-4	pentasodium triphosphate	0.61 mg/m <sup>3</sup>
124-07-2	octanoic acid	30 mg/m <sup>3</sup>

### \* PAC-2:

1310-58-3	POTASSIUM HYDROXIDE	2 mg/m <sup>3</sup>
141-43-5	2-aminoethanol	170 ppm
111-76-2	butyl cellosolve	120 ppm
7758-29-4	pentasodium triphosphate	6.8 mg/m <sup>3</sup>
124-07-2	octanoic acid	330 mg/m <sup>3</sup>

### \* PAC-3:

1310-58-3	POTASSIUM HYDROXIDE	54 mg/m <sup>3</sup>
141-43-5	2-aminoethanol	1,000 ppm
111-76-2	butyl cellosolve	700 ppm
7758-29-4	pentasodium triphosphate	620 mg/m <sup>3</sup>
124-07-2	octanoic acid	2,000 mg/m <sup>3</sup>

## 7 Handling and storage

- \* **Handling:**
- \* **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- \* **Information about protection against explosions and fires:** No special measures required.
- \* **Conditions for safe storage, including any incompatibilities**
- \* **Storage:**
- \* **Requirements to be met by storerooms and receptacles:** No special requirements.
- \* **Information about storage in one common storage facility:** Not required.
- \* **Further information about storage conditions:** Keep receptacle tightly sealed.
- \* **Specific end use(s)** No further relevant information available.

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## 8 Exposure controls/personal protection

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

\* **Control parameters**

\* **Components with limit values that require monitoring at the workplace:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

**1310-58-3 POTASSIUM HYDROXIDE**

REL Ceiling limit value: 2 mg/m<sup>3</sup>

TLV Ceiling limit value: 2 mg/m<sup>3</sup>

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

PEL Long-term value: 6 mg/m<sup>3</sup>, 3 ppm

REL Short-term value: 15 mg/m<sup>3</sup>, 6 ppm  
Long-term value: 8 mg/m<sup>3</sup>, 3 ppm

TLV Short-term value: 6 ppm  
Long-term value: 3 ppm

\* **Additional information:** The lists that were valid during the creation were used as basis.

\* **Exposure controls**

\* **Personal protective equipment:**

\* **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

\* **Breathing equipment:** Not necessary if room is well-ventilated.

\* **Protection of hands:**



Protective gloves

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

\* **Material of gloves**

Material : butyl rubber + nitrile

Thickness of the glove : ≥ 0.7 mm

Penetration time : ≥ 480 min

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

\* **Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

\* **Eye protection:**



Tightly sealed goggles

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**\* Body protection:**


Protective work clothing (EN13034 – Type 6)

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

**Color:** Clear

**\* Odor:** Characteristic

**\* Odor threshold:** Not determined.

**\* pH-value at 20 °C (68 °F):** 13.8

**\* Change in condition**
**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 100 °C (212 °F)

**\* Flash point:** Not applicable.

**\* Flammability (solid, gaseous):** Not applicable.

**\* Decomposition temperature:** Not determined.

**\* Auto igniting:** Product is not selfigniting.

**\* Danger of explosion:** Product does not present an explosion hazard.

**\* Lower:** Not determined.

**\* Upper:** Not determined.

**\* Vapor pressure at 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

**\* Density at 20 °C (68 °F):** 1.08 g/cm<sup>3</sup> (9.01 lbs/gal)

**\* Relative density** Not determined.

**\* Vapor density** Not determined.

**\* Evaporation rate** Not determined.

**\* Solubility in / Miscibility with**
**Water:** Fully miscible.

**\* Partition coefficient (n-octanol/water):** Not determined.

**\* Dynamic:** Not determined.

**\* Kinematic:** Not determined.

**\* Solvent content:**
**VOC** 1.70 %

**\* Other information** No further relevant information available.

**10 Stability and reactivity**
**\* Reactivity** No further relevant information available.

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- \* **Chemical stability**
- \* **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- \* **Possibility of hazardous reactions** No dangerous reactions known.
- \* **Conditions to avoid** No further relevant information available.
- \* **Incompatible materials:** No further relevant information available.
- \* **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

**\* Information on toxicological effects**
**\* Acute toxicity:**
**\* LD/LC50 values that are relevant for classification:**
**1310-58-3 POTASSIUM HYDROXIDE**

Oral	LD50	273 mg/kg (rat)
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**141-43-5 2-aminoethanol**

Oral	LD50	2,050 mg/kg (rat)
Dermal	LD50	1,000 mg/kg (rabbit)
Inhalative	LC50/4 h	11 mg/l (ATE)

**164462-16-2 TRISODIUM DICARBOXYMETHYLALANINATE**

Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

**\* Primary irritant effect:**
**\* on the skin:**

Strong caustic effect on skin and mucous membranes.  
Caustic effect on skin and mucous membranes.

**\* on the eye:** Strong caustic effect.

**\* Additional toxicological information:**

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

Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

**\* Carcinogenic categories**
**\* IARC (International Agency for Research on Cancer)**

111-76-2	butyl cellosolve	3
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**\* NTP (National Toxicology Program)**

None of the ingredients is listed.

**\* OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

## 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.

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**\* Additional ecological information:**

**\* General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Must not reach bodies of water or drainage ditch undiluted or unneutralized.  
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

**\* 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:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

**\* 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**

UN1719

**\* UN proper shipping name**

**\* DOT**

CAUSTIC ALKALI LIQUIDS, N.O.S. (POTASSIUM HYDROXIDE)

**\* ADR**

1719 CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE)

**\* IMDG, IATA**

CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE)

**\* Transport hazard class(es)**

**\* DOT**



**\* Class**

8 Corrosive substances

**\* Label**

8

**\* ADR, IMDG, IATA**



**\* Class**

8 Corrosive substances

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* <b>Label</b>	8
* <b>Packing group</b>	
* <b>DOT, ADR, IMDG, IATA</b>	II
* <b>Environmental hazards:</b>	Not applicable.
* <b>Special precautions for user</b>	Warning: Corrosive substances
* <b>Hazard identification number (Kemler code):</b>	80
* <b>EMS Number:</b>	F-A,S-B
* <b>Segregation groups</b>	Alkalis
* <b>Stowage Category</b>	A
* <b>Segregation Code</b>	SG22 Stow "away from" ammonium salts SG35 Stow "separated from" SGG1-acids
* <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
* <b>Transport/Additional information:</b>	
* <b>ADR</b>	
* <b>Beperkte hoeveelheden (LQ)</b>	1L
* <b>UN "Model Regulation":</b>	UN 1719 CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE), 8, II

## 15 Regulatory information

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

\* **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

\* **Section 313 (Specific toxic chemical listings):**

111-76-2	butyl cellosolve
7758-29-4	pentasodium triphosphate

\* **TSCA (Toxic Substances Control Act):**

7732-18-5	water, distilled, conductivity or of similar purity	ACTIVE
1310-58-3	POTASSIUM HYDROXIDE	ACTIVE
141-43-5	2-aminoethanol	ACTIVE
164462-16-2	TRISODIUM DICARBOXYMETHYLALANINATE	ACTIVE
28348-53-0	SODIUM CUMENE SULPHONATE	ACTIVE
527-07-1	sodium gluconate	ACTIVE
111-76-2	butyl cellosolve	ACTIVE
7758-29-4	pentasodium triphosphate	ACTIVE
124-07-2	octanoic acid	ACTIVE
2235-43-0	pentasodium hydrogen C,C',C''-nitrilotris(methylphosphonate)	ACTIVE

\* **Hazardous Air Pollutants**

None of the ingredients is listed.

\* **Proposition 65**

\* **Chemicals known to cause cancer:**

None of the ingredients is listed.

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**\* Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**\* Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

**\* Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

**\* Cancerogenity categories**
**\* EPA (Environmental Protection Agency)**

111-76-2	butyl cellosolve	NL
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**\* TLV (Threshold Limit Value)**

111-76-2	butyl cellosolve	A3
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**\* MAK (German Maximum Workplace Concentration)**

111-76-2	butyl cellosolve	4
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**\* NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**\* National regulations:**
**\* Technical instructions (air):**

Class	Share in %
NK	1.7

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

**\* Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

The information given in this Material Safety Sheet refer to the product described in this sheet, and is provided in the supposition that the product will be used in a proper way and for the purpose indicated by the manufacturer.

It is the responsibility of the user to take advised precautions, and also to make sure that this information is complete and sufficient for the use of the product. It is recommended to pass this information, if necessary, in an adapted form, to personnel and other interested parties.

Manufacturer does not carry any responsibility for use of the product, in any way, which is not in accordance with the instructions and the purposes indicated by the manufacturer.

**\* Contact:**
**\* NFPA-ratings (scale 0 - 4)**

 Health = 3  
 Fire = 0  
 Reactivity = 0

**\* HMIS-ratings (scale 0 - 4)**

 Health = \*3  
 Fire = 0  
 Reactivity = 0

**\* Date of preparation / last revision 03/23/2023**

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**\* Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised 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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety &amp; Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Corrosive to Metals 1: Corrosive to metals – Category 1

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Skin Corrosion 1A: Skin corrosion/irritation – Category 1A

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

**\* Sources** <http://echa.europa.eu>**\*\* Data compared to the previous version altered. \***

US