

**Cleanolyte CE 1**

Article number 81.5051.1

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## 1. Product and company identification

### Product identifier

Trade name: Cleanolyte CE 1

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

General use: Electrolytic/electro-chem metal marking for Carbide, black-oxide parts and electro-chem (acid) cleaning  
For industrial purposes only

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

Company name: Schilling Marking Systems GmbH  
Street/POB-No.: In Grubenäcker 1  
Postal Code, city: 78532 Tuttlingen  
Germany

WWW: [www.schilling-marking.de](http://www.schilling-marking.de)  
E-mail: [info@schilling-marking.de](mailto:info@schilling-marking.de)  
Telephone: +49 (0)7461 9472-0  
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Dept. responsible for information:  
Herr Andreas Schilling,  
Telephone: +49 (0)7461 9472-0  
Email: [info@schilling-marking.de](mailto:info@schilling-marking.de)

### Emergency telephone number

GIZ-Nord, Germany Telephone: +49 (0)551-19240

## 2. Hazards identification

### Emergency overview

Appearance: Physical state: liquid  
Color: colorless, clear  
Odor: characteristic

### Regulatory status

While this material is not considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada, this MSDS contains valuable information critical to the safe handling and proper use of the product.

### Information pertaining to special dangers for human and environment

Eye contact: May cause irritations.  
A corrosive effect cannot be ruled out because of the pH value.

Cleaning work: Product may release corrosive gases/vapors.  
see section 11: Toxicological information

## 3. Composition / Information on ingredients

Chemical characterization: A mixture of water, mineral acids and complexing agent

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Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 7664-38-2	Phosphoric acid	1 - 10 %	Corrosive to Metals - Category 1. Skin Corrosion - Category 1B.
CAS 126-92-1	Sodium etasulfate	< 1 %	Skin Irritation - Category 2. Eye Damage - Category 1.

**4. First-aid measures**

General information:	Remove contaminated clothing.
In case of inhalation:	Provide fresh air. Seek medical treatment in case of troubles.
In case of skin contact:	Immediately clean with water and soap and, if available, apply a generous amount of polyethylene glycol 400. In case of skin reactions, consult a physician.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
After swallowing:	Rinse mouth and drink large quantities of water. Do not induce vomiting. Risk of perforation! Immediately get medical attention.

**Most important symptoms and effects, both acute and delayed**

In case of inhalation: May cause irritations.  
After contact with skin: May cause irritations.  
After eye contact: May cause irritations.

**Information to physician**

Risk of foam aspiration when vomiting.

**5. Firefighting measures**

Flash point/flash point range:	not combustible
Suitable extinguishing media:	Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

**Special hazards arising from the substance or mixture**

On heating or in case of fire toxic gases may form.  
In the event of a fire, the following may be produced when the water evaporates:  
Phosphorus oxides.  
Hydrogen may form upon contact with metals (danger of explosion!).

Special protective equipment for firefighters:	Wear a self-contained breathing apparatus and chemical protective clothing.
Additional information:	Use a water fog to control vapors. Do not allow fire water to penetrate into surface or ground water.

**6. Accidental release measures**

Personal precautions:	Provide adequate ventilation. Do not breathe vapor or spray. Avoid contact with the substance. Wear suitable protective clothing.
Environmental measures:	Do not allow to penetrate into soil, waterbodies or drains.
Methods for cleaning up:	Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents) and place in closed containers for disposal. Use soda or another alkaline detergent for removal of residues.

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## 7. Handling and storage

### Handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.  
Do not breathe vapor or spray. Avoid contact with skin and eyes.

### Storage

Requirements for storerooms and containers:

Store containers tightly closed in a cool, dry, well ventilated area at temperatures not below 0°C °C.

Protect from frost.

Unsuitable materials: metal.

## 8. Exposure controls / personal protection

### Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
7664-38-2	Phosphoric acid	USA: ACGIH: STEL	3 mg/m <sup>3</sup>
		USA: ACGIH: TWA	1 mg/m <sup>3</sup>
		USA: NIOSH: STEL	3 mg/m <sup>3</sup>
		USA: NIOSH: TWA	1 mg/m <sup>3</sup>
		USA: OSHA: TWA	1 mg/m <sup>3</sup>

### Engineering controls

Provide good ventilation and/or an exhaust system in the work area.

See also information in chapter 7, section storage.

### Personal protection equipment

Eye protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Body protection: Wear suitable protective clothing.

Protective gloves according to OSHA Standard - 29 CFR: 1910.138.

Glove material: Nitrile rubber-Layer thickness: &gt;= 0,35 mm

Possible alternatives: natural rubber, butyl caoutchouc (butyl rubber), fluoro rubber.

Breakthrough time: &gt; 480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.  
Combination filtering device (EN 14387), filter type B-P2

### General protection and hygiene measures

Persons working with this product should not wear contact lenses.

Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing. Do not breathe vapor or spray.

Wash hands before breaks and after work.

Have eye wash bottle or eye rinse ready at work place.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance: Physical state: liquid  
Color: colorless, clear

Odor: characteristic

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pH value:	at 68 °F: 1.6
Melting point/freezing point:	approx. 32 °F
Initial boiling point and boiling range:	approx. 212 °F
Flash point/flash point range:	not combustible
Water solubility:	at 68 °F: infinitely soluble

**Additional information**

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**10. Stability and reactivity**

Reactivity:	Risk of corrosion
Chemical stability:	Product is stable under normal storage conditions.
Possibility of hazardous reactions	Hydrogen may form upon contact with metals (danger of explosion!).
Conditions to avoid:	Protect from excessive heat.
Materials to avoid:	Alkalis, metallic oxides, iron, steel, aluminium, ferruginous compounds
Hazardous decomposition products:	In the event of a fire, the following may be produced when the water evaporates: Phosphorus oxides.

**11. Toxicological information****Toxicological tests**

Toxicological effects:	Acute toxicity (oral): Based on available data, the classification criteria are not met. Acute toxicity (dermal): Based on available data, the classification criteria are not met. Acute toxicity (inhalative): Lack of data. Skin corrosion/irritation: Inconclusive data. Classification according to EC regulation 1272/2008 (CLP), appendix VI. Eye damage/irritation: Inconclusive data. Classification according to EC regulation 1272/2008 (CLP), appendix VI. Sensitisation to the respiratory tract: Lack of data. Skin sensitisation: Lack of data. Germ cell mutagenicity/Genotoxicity: Lack of data. Carcinogenicity: Lack of data. Reproductive toxicity: Lack of data. Effects on or via lactation: Lack of data. Specific target organ toxicity (single exposure): Lack of data. Specific target organ toxicity (repeated exposure): Lack of data. Aspiration hazard: Lack of data.
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**Symptoms**

In case of inhalation: May cause irritations.  
After contact with skin: May cause irritations.  
After eye contact: May cause irritations.

**General remarks**

A corrosive effect cannot be ruled out because of the pH value.  
The following applies to Phosphoric acid in general: LD50 Rat, oral: 1530 mg/kg.

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## 12. Ecological information

### Ecotoxicity

Aquatic toxicity: Harmful effects on water organisms by modification of pH-value.

Information about Phosphoric acid:

Forms corrosive mixtures with water even if diluted.

Fish toxicity: LC50 *Gambusia affinis*: 138 mg/L/96 h.

Further details: The surfactant contained in this preparation complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.

### Additional ecological information

AOX reference: Product does not contain organically bound halogen (AOX).

General information: Do not allow to enter into ground-water, surface water or drains.

## 13. Disposal considerations

### Product

Recommendation: Special waste. Dispose of waste according to applicable legislation.

### Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.  
Handle contaminated packages in the same way as the substance itself.

## 14. Transport information

### USA: Department of Transportation (DOT)

Identification numbers: UN1805  
Proper shipping name: UN 1805, Phosphoric acid solution  
DOT hazard class or division: 8  
PG: III  
Label codes: 8  
Special provisions: A7, IB3, N34, T4, TP1  
Packaging - Exceptions: 154  
Packaging - Non-bulk: 203  
Packaging - Bulk: 241  
Quantity limitations - Passenger aircraft / rail: 5 L  
Quantity limitations - Cargo only: 60 L  
Vessel stowage - Location: A



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**Sea transport (IMDG)**

UN number: 1805  
Proper shipping name: UN 1805, PHOSPHORIC ACID SOLUTION  
IMDG: Class 8, Subrisk -  
Packing Group: III  
EmS: F-A, S-B  
Special provisions: 223  
Limited quantities: 5 L  
EQ: E1  
Contaminated packaging - Instructions: P001, LP01  
Contaminated packaging - Provisions: -  
IBC - Instructions: IBC03  
IBC - Provisions: -  
Tank instructions - IMO: -  
Tank instructions - UN: T4  
Tank instructions - Provisions: TP1  
Stowage and segregation: Category A.  
Properties and observations: Miscible in water. Mildly corrosive to most metals.  
Marine pollutant: No  
Segregation group: none

**Air transport (IATA)**

UN/ID number: 1805  
Proper shipping name: UN 1805, PHOSPHORIC ACID SOLUTION  
ICAO/IATA: Class 8  
PG: III  
Hazard: Corrosive  
EQ: E1  
Passenger Ltd.Qty.: Pack.Instr. Y841 - Max. Net Qty/Pkg. 1 L  
Passenger: Pack.Instr. 852 - Max. Net Qty/Pkg. 5 L  
Cargo: Pack.Instr. 856 - Max. Net Qty/Pkg. 60 L  
Special Provisioning: A3 A803  
ERG: 8L

**15. Regulatory information****U.S. Federal Regulations**

Phosphoric acid: TSCA Inventory: listed  
TSCA HPVC: not listed  
Clean Water Act:  
Hazardous Substances: RQ 5000 lbs.  
Other Environmental Laws:  
CERCLA: RQ 5000 lbs.  
NIOSH Recommendations:  
Occupational Health Guideline: 0506

Sodium etasulfate: TSCA Inventory: listed  
TSCA HPVC: not listed

**National regulations - EC member states****Labeling (67/548/EEC or 1999/45/EC)**

Code letter and hazard symbol: not applicable

R phrase(s): not applicable

S phrase(s): S 24/25 Avoid contact with skin and eyes.

**National regulations - Great Britain**

Hazchem-Code: 2R

**16. Other information**

Text for labeling: A corrosive effect cannot be ruled out because of the pH value.

Contains anionic tenside <5%.

Hazard rating systems:

NFPA Hazard Rating:



Health: 1 (Slight)

Fire: 0 (Minimal)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 0 (Minimal)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
	X

Reason of change: Changes in section 1: Use

Date of first version: 28.07.2008

**Department issuing data sheet**

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.