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

1.1 Product identifier

Trade name: Cleanolyte CE 2

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

General use: Cleaning agent for Refined steel
For industrial purposes only

1.3 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
E-mail: info@schilling-marking.de
Telephone: +49 (0)7461 9472-17
Telefax: +49 (0)7461 9472-29
Dept. responsible for information:
Herr Andreas Schilling,
Telephone: +49 (0)7461 9472-15, Email: info@schilling-marking.de

1.4 Emergency telephone number

Beratungsstelle für Vergiftungserscheinungen, Berlin,
Telephone: +49 (0)30 19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Xi; R36/38 Irritating to eyes and skin.

2.2 Label elements

Labelling (67/548/EEC or 1999/45/EC)

Xi

irritant

R phrase(s):	R 36/38	Irritating to eyes and skin.
S phrase(s):	S 23	Do not breathe vapour/aerosol.
	S 24/25	Avoid contact with skin and eyes.
	S 26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S 36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
	S 45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Text for labelling: Contains anionic tenside < 5%.

2.3 Other hazards

A corrosive effect cannot be ruled out because of the pH value.
Risk of serious damage to eyes.

Cleaning work: Product may release corrosive gases/vapours.

SECTION 3: Composition/ information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterization (preparation):

A mixture of water, mineral acids and complexing agent

Hazardous ingredients:

Ingredient	Chemical name	Content	Classification
EINECS 231-639-5 CAS 7664-93-9	Sulfuric acid	1-5 %	EU: C; R35. CLP: Met. Corr. 1; H290. Skin Corr. 1A; H314.
EINECS 231-633-2 CAS 7664-38-2	Phosphoric acid	1-5 %	EU: C; R34. CLP: Met. Corr. 1; H290. Skin Corr. 1B; H314.

Additional information: Labelling for contents according to regulation (EC) No 648/2004, annex 7:
Contains anionic tenside < 5%.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: Remove contaminated clothing.

After 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.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

Danger of foam aspiration.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

5.2 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, sulphur oxides.
Hydrogen may form upon contact with metals (danger of explosion!).

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Hazchem-Code: 2X

Use water spray jet to knock down vapours.
Do not allow fire water to penetrate into surface or ground water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe vapour/aerosol.
Avoid contact with the substance. Wear suitable protective clothing.

6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

6.3 Methods and material for containment and 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.

6.4 Reference to other sections

Refer additionally to chapter 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.
Do not breathe vapour/aerosol. Avoid contact with skin and eyes.

7.2 Conditions for safe storage, including any incompatibilities

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.

Storage class: 8B= Non-combustible corrosive substances

7.3 Specific end use(s)

Cleaning agent for Refined steel

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS No.	Chemical name	Type	Limit value
7664-93-9	Sulfuric acid	Great Britain: WEL-TWA	(The mist is defined as the thoracic fraction) 0,05 mg/m³
		Europe: IOELV: TWA	0,05 mg/m³
7664-38-2	Phosphoric acid	Great Britain: WEL-TWA	1 mg/m³
		Great Britain: WEL-STEL	2 mg/m³
		Europe: IOELV: TWA	1 mg/m³
		Europe: IOELV: STEL	2 mg/m³

8.2 Exposure controls

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

Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded.
Combination filter B-P2 according to EN 141.

Hand protection: Protective gloves according to EN 374.
Glove material: Nitrile rubber-Layer thickness: >= 0,35 mm
Possible alternatives: natural rubber, butyl caoutchouc (butyl rubber), fluoro rubber.
Breakthrough time: > 480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed safety glasses according to EN 166.

Body protection: Wear suitable protective clothing.

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 vapour/aerosol.
Wash hands before breaks and after work.
Have eye wash bottle or eye rinse ready at work place.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	liquid
Colour	colourless
Odour:	characteristic
Boiling temperature / boiling range	approx. 100 °C
Melting point / melting range	approx. 0 °C
Flash point / flash point range:	not combustible
pH value:	at 20 °C: 1,2-1,5
Water solubility:	at 20 °C: infinitely soluble

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Risk of corrosion

10.2 Chemical stability

Product is stable under normal storage conditions.

10.3 Possibility of hazardous reactions

Polymerization will not occur.
Hydrogen may form upon contact with metals (danger of explosion!).

10.4 Conditions to avoid

Protect from excessive heat.

10.5 Incompatible materials

Alkalis, ammonia, halogen compounds, permanganates, carbides, cyanides, hydrides, metallic oxides, iron, steel, aluminium, ferruginous compounds

10.6 Hazardous decomposition products

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, sulphur oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects

Acute toxicity (oral): Based on available data, the classification criteria are not met.
Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Skin Irrit. 2; H315.

Eye damage / irritation: Eye Irrit. 2; H319.

Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.

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: Based on available data, the classification criteria are not met.
Danger of foam aspiration

General remarks

A corrosive effect cannot be ruled out because of the pH value.

Information about sulphuric acid:
LD50 Rat, oral: 350 mg/kg
LC50 Rat, inhalative: 530 mg/m³/2 h.

Information about Phosphoric acid:
LD50 Rat, oral: 1530 mg/kg.
LC50 Rat, inhalative: >850 mg/m³

SECTION 12: Ecological information

12.1 Toxicity

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

Information about sulphuric acid:
Forms corrosive mixtures with water even if diluted.
Daphnia toxicity: EC50 Daphnia magna: 29 mg/L/24 h.
Fish toxicity: LC50 Lepomis macrochirus (bluegill) 16 - 29 mg/L/96 h.

Water Hazard Class: 1 = slightly hazardous to water

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

12.2. Persistence and degradability

Further details: No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 11 01 06* = acids not otherwise specified
* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation.

Contaminated packaging

Waste key number: 15 01 02 = Plastic packaging

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

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA: 3264

14.2 UN proper shipping name

ADR/RID, IMDG, IATA: UN 3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulfuric acid, Phosphoric acid)

14.3 Transport hazard class(es)

ADR/RID: Class 8, Code: C1
IMDG: Class 8, Code -
IATA: Class 8

14.4 Packing group

ADR/RID, IMDG, IATA: III

14.5 Environmental hazards

Marine pollutant - IMDG: No

14.6 Special precautions for user

Land transport (ADR/RID)

Warning board:	ADR/RID: Kemmler-number 80, UN number 3264
Hazard label	8
Special provisions	274
Limited quantities	5 L
EQ	E1
Contaminated packaging: Instructions	P001 IBC03 LP01 R001
Special provisions for packing together	MP19
Portable tanks: Instructions	T7
Portable tanks: Special provisions	TP1 TP28
Tank coding	L4BN
Tunnel restriction code:	E

Sea transport (IMDG)

EmS:	F-A, S-B
Special provisions	223, 274
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	T7
Tank instructions Provisions	TP1, TP28
Stowage and segregation	Category A. Clear of living quarters.
Properties and observations	Causes burns to skin, eyes and mucous membranes.
Segregation group	1

Air transport (IATA)

Hazard	Corrosive
EQ	E1
Passenger Ltd.Qty.:	Pack.Instr. Y841 - Max.Qty. 1 L
Passenger:	Pack.Instr. 852 - Max.Qty. 5 L
Cargo:	Pack.Instr. 856 - Max.Qty. 60 L
Special Provisioning	A3 A803
ERG	8L

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: 2X

National regulations - Germany

Storage class: 8B= Non-combustible corrosive substances

Water Hazard Class: 1 = slightly hazardous to water

Informations on working limitations:

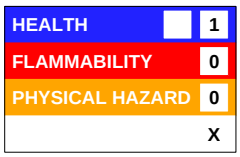
Observe employment restrictions concerning young persons.

National regulations - USA

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



15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information

Further remarks

Wording of the R-phrases under paragraph 2 and 3:

R 34 = Causes burns.
R 35 = Causes severe burns.
R 36/38 = Irritating to eyes and skin.

Reason of change: General revision

Group that issues data sheet

Contact person: see chapter 1, department 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.