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

Product identifier

Trade name: cleaner CY820 oxidizing
Synonym: *cleaning concentrate*

Article number: *CY820-1+UA*

Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

Application of the substance / the mixture
Laboratory chemicals
Disinfectant

Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Endress+Hauser
Conducta GmbH+Co. KG
Dieselstraße 24
D-70839 Gerlingen

Further information obtainable from:
Phone: +49 (0)7156 209-10117
E-Mail: MSDS.PCC@endress.com

Emergency telephone number: *00971 800 424 (from 7 am to 3 pm, from Sunday to Thursday)*

* SECTION 2: Hazards identification

Classification of the substance or mixture

flame over circle

Ox. Liq. 2 *H272 May intensify fire; oxidiser.*

corrosion

Skin Corr. 1A *H314 Causes severe skin burns and eye damage.*
Eye Dam. 1 *H318 Causes serious eye damage.*

environment

Aquatic Chronic 2 *H411 Toxic to aquatic life with long lasting effects.*

Acute Tox. 4 *H302 Harmful if swallowed.*
STOT SE 3 *H335 May cause respiratory irritation.*

Label elements
GHS label elements
The product is classified and labelled according to the Globally Harmonised System (GHS).

(Contd. on page 2)

(Contd. of page 1)

Hazard pictograms

GHS03 GHS05 GHS07 GHS09

Signal word *Danger*

Hazard-determining components of labelling:
hydrogen peroxide solution
peracetic acid
acetic acid
Hazard statements
May intensify fire; oxidiser.
Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause respiratory irritation.
Toxic to aquatic life with long lasting effects.
Precautionary statements
Take any precaution to avoid mixing with combustibles.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
Additional information:
Product contains: Restricted explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 5 (1) and (3).
Other hazards
The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*

SECTION 3: Composition/information on ingredients

Mixtures
Description: *Mixture of substances listed below with nonhazardous additions.*

Dangerous components:		
CAS: 7722-84-1 *EINECS: 231-765-0*	*hydrogen peroxide solution* *Ox. Liq. 1, H271; Skin Corr. 1A, H314; Acute Tox. 4, H302; Acute Tox. 4, H332* *Specific concentration limits: Ox. Liq. 1; H271: C ≥ 70 %* *Ox. Liq. 2; H272: 50 % ≤ C < 70 %* *Skin Corr. 1A; H314: C ≥ 70 %* *Skin Corr. 1B; H314: 50 % ≤ C < 70 %* *Skin Irrit. 2; H315: 35 % ≤ C < 50 %* *Eye Dam. 1; H318: C ≥ 8 %* *Eye Irrit. 2; H319: 5 % ≤ C < 8 %* *STOT SE 3; C ≥ 35 %*	*20-40%*
CAS: 64-19-7 *EINECS: 200-580-7*	*acetic acid* *Flam. Liq. 3, H226; Skin Corr. 1A, H314; Acute Tox. 4, H312* *Specific concentration limits: Skin Corr. 1A; H314: C ≥ 90 %* *Skin Corr. 1B; H314: 25 % ≤ C < 90 %* *Skin Irrit. 2; H315: 10 % ≤ C < 25 %* *Eye Irrit. 2; H319: 10 % ≤ C < 25 %*	*5-10%*

(Contd. on page 3)

(Contd. of page 2)

CAS: 79-21-0 *EINECS: 201-186-8*	*peracetic acid* *Flam. Liq. 3, H226; Org. Perox. D, H242; Skin Corr. 1A, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332* *Specific concentration limit: STOT SE 3; H335: C ≥ 1 %*	*2-6%*

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

SECTION 4: First aid measures

Description of first aid measures

General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation: *In case of unconsciousness place patient stably in side position for transportation.*

After skin contact:
Call a doctor immediately.
Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.

After eye contact: *Rinse opened eye for several minutes under running water. Then consult a doctor.*

After swallowing:
Call for a doctor immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.
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.

SECTION 5: Firefighting measures

Extinguishing media
Suitable extinguishing agents: *Use fire extinguishing methods suitable to surrounding conditions.*
For safety reasons unsuitable extinguishing agents: *no further information*
Special hazards arising from the substance or mixture *Carbon monoxide (CO)*
Advice for firefighters *No further relevant information available.*
Protective equipment: *Wear self-contained respiratory protective device.*

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
Wear protective clothing.
Environmental precautions:
Inform respective authorities in case of seepage into water course or sewage system.
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 neutralising 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.

(Contd. on page 4)

(Contd. of page 3)

See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

Precautions for safe handling
Avoid splashes or spray in enclosed areas.
Keep away from heat and direct sunlight.
Information about fire - and explosion protection:
Fumes can combine with air to form an explosive mixture.
Emergency cooling must be available in case of nearby fire.

Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles: *Store only in the original receptacle.*
Information about storage in one common storage facility:
Store away from oxidising agents.
Store away from reducing agents.
Further information about storage conditions:
Store in a cool place.
Keep container tightly sealed.
Storage class: *5.1 B*
Specific end use(s) *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

Control parameters

Ingredients with limit values that require monitoring at the workplace:	
CAS: 7722-84-1 hydrogen peroxide solution	
PEL (USA)	*Long-term value: 1.4 mg/m³, 1 ppm*
REL (USA)	*Long-term value: 1.4 mg/m³, 1 ppm*
TLV (USA)	*Long-term value: 1 ppm* *A3*
WEL (Great Britain)	*Short-term value: 2.8 mg/m³, 2 ppm* *Long-term value: 1.4 mg/m³, 1 ppm*
CAS: 64-19-7 acetic acid	
PEL (USA)	*Long-term value: 25 mg/m³, 10 ppm*
REL (USA)	*Short-term value: 37 mg/m³, 15 ppm* *Long-term value: 25 mg/m³, 10 ppm*
TLV (USA)	*Short-term value: 15 ppm* *Long-term value: 10 ppm*
IOELV (EU)	*Short-term value: 50 mg/m³, 20 ppm* *Long-term value: 25 mg/m³, 10 ppm*
WEL (Great Britain)	*Short-term value: 50 mg/m³, 20 ppm* *Long-term value: 25 mg/m³, 10 ppm*
CAS: 79-21-0 peracetic acid	
TLV (USA)	*Short-term value: 0.4* ppm* **inhalable fraction + vapor, A4*

Additional information: *The lists valid during the making were used as basis.*

Exposure controls
Appropriate engineering controls *No further data; see item 7.*
Individual protection measures, such as personal protective equipment

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.

(Contd. on page 5)

(Contd. of page 4)

Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Hand protection

Protective gloves

To avoid skin problems reduce the wearing of gloves to the required minimum.
Only use chemical-protective gloves with CE-labelling of category III.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves
Butyl rubber, BR
Nitrile rubber, NBR
Chloroprene rubber, CR
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/face protection

Tightly sealed goggles

Body protection: *Protective work clothing*

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

General Information	
Physical state	*Fluid*
Colour:	*Colourless*
Odour:	*Acrid*
Odour threshold:	*Not determined.*
Melting point/freezing point:	*Undetermined.*
Boiling point or initial boiling point and boiling range	*Undetermined.*
Flammability	*Not applicable.*
Lower and upper explosion limit	
Lower:	*Not determined.*
Upper:	*Not determined.*
Flash point:	*> 60 °C*
Decomposition temperature:	*Not determined.*
pH at 20 °C	*0.5-1.5*
Viscosity:	
Kinematic viscosity	*Not determined.*
Dynamic:	*Not determined.*

(Contd. on page 6)

(Contd. of page 5)

Solubility	
water:	*Fully miscible.*
Partition coefficient n-octanol/water (log value)	*Not determined.*
Vapour pressure at 20 °C:	*23 hPa*
Density and/or relative density	
Density at 20 °C:	*1.12 g/cm³*
Relative density	*Not determined.*
Vapour density	*Not determined.*
Other information	
Appearance:	
Form:	*Fluid*
Important information on protection of health and environment, and on safety.	
Auto-ignition temperature:	*Product is not selfigniting.*
Explosive properties:	*Product does not present an explosion hazard.* *Not determined.*
Solvent content:	
Organic solvents:	*9.0 %*
Water:	*58.0 %*
Solids content:	*0.0 %*
Change in condition	
Evaporation rate	*Not determined.*
Information with regard to physical hazard classes	
Explosives	*Void*
Flammable gases	*Void*
Aerosols	*Void*
Oxidising gases	*Void*
Gases under pressure	*Void*
Flammable liquids	*Void*
Flammable solids	*Void*
Self-reactive substances and mixtures	*Void*
Pyrophoric liquids	*Void*
Pyrophoric solids	*Void*
Self-heating substances and mixtures	*Void*
Substances and mixtures, which emit flammable gases in contact with water	*Void*
Oxidising liquids	*May intensify fire; oxidiser.*
Oxidising solids	*Void*
Organic peroxides	*Void*
Corrosive to metals	*Void*
Desensitised explosives	*Void*

SECTION 10: Stability and reactivity

Reactivity *No further relevant information available.*
Chemical stability
Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
Possibility of hazardous reactions
Corrosive action on metals.
Reacts with alkali and metals.
Conditions to avoid *No further relevant information available.*
Incompatible materials: *No further relevant information available.*
Hazardous decomposition products: *Carbon monoxide and carbon dioxide*

(Contd. on page 7)

(Contd. of page 6)

SECTION 11: Toxicological information

Information on hazard classes as defined in Regulation (EC) No 1272/2008
Acute toxicity *Harmful if swallowed.*

LD/LC50 values relevant for classification:		
CAS: 64-19-7 acetic acid		
Oral	*LD50*	*3,310 mg/kg (rat)*
Dermal	*LD50*	*1,060 mg/kg (rbt)*
CAS: 79-21-0 peracetic acid		
Oral	*LD50*	*1,740 mg/kg (rat)*

Skin corrosion/irritation *Causes severe skin burns and eye damage.*
Serious eye damage/irritation *Causes serious eye damage.*
STOT-single exposure *May cause respiratory irritation.*
Information on other hazards

Endocrine disrupting properties
None of the ingredients is listed.

SECTION 12: Ecological information

Toxicity

Aquatic toxicity:	
CAS: 7722-84-1 hydrogen peroxide solution	
EC50[72h]	*1.38 mg/l (Algae)*
CAS: 64-19-7 acetic acid	
EC50[48h]	*36.9 mg/l (Daphnia Magna)*
EC50[72h]	*>1,000 mg/l (Algae)*
CAS: 79-21-0 peracetic acid	
EC50[48h]	*0.73 mg/l (Daphnia Magna)*
EC50[72h]	*0.7 mg/l (Algae)*
EC50[96h]	*0.8 mg/l (Fish)*
NOEC (chron aqua tox)	*0.00094 mg/l (danio rerio)*

Persistence and degradability *No further relevant information available.*
Bioaccumulative potential *No further relevant information available.*
Mobility in soil *No further relevant information available.*
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*
Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.
Other adverse effects
Remark: *Toxic for fish*
Additional ecological information:
General notes:
Water hazard class 1 (German Regulation) (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 sewage water or drainage ditch undiluted or unneutralised.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

(Contd. on page 8)

(Contd. of page 7)

SECTION 13: Disposal considerations

Waste treatment methods
Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:
Recommendation: *Disposal must be made according to official regulations.*
Recommended cleansing agents: *Water, if necessary together with cleansing agents.*

SECTION 14: Transport information

UN number or ID number
IMDG, IATA *UN3149*
UN proper shipping name
ADR *UN3149 HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE STABILIZED*
IMDG *HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE STABILIZED, MARINE POLLUTANT*
IATA *Hydrogen peroxide and peroxyacetic acid mixture stabilized*

Transport hazard class(es)

ADR

Class *5.1 (OC1) Oxidising substances.*
Label *5.1+8*

IMDG

Class *5.1 Oxidising substances.*
Label *5.1/8*

IATA

Class *5.1 Oxidising substances.*
Label *5.1 (8)*
Packing group
ADR, IMDG, IATA *II*
Environmental hazards: *Product contains environmentally hazardous substances: peracetic acid*
Marine pollutant: *Yes*
Symbol (fish and tree)
Special marking (ADR): *Symbol (fish and tree)*
Special precautions for user *Warning: Oxidising substances.*
Hazard identification number (Kemler code): *58*
EMS Number: *F-H,S-Q*
Segregation groups *Peroxides*
Stowage Category *D*

(Contd. on page 9)

(Contd. of page 8)

Stowage Code *SW1 Protected from sources of heat.*
Segregation Code *SG16 Stow "separated from" class 4.1*
SG59 Stow "separated from" SGG14-permanganates
SG72 See 7.2.6.3.2.
Maritime transport in bulk according to IMO instruments *Not applicable.*
Transport/Additional information:

ADR
Limited quantities (LQ) *1L*
Transport category *2*
Tunnel restriction code *E*

IMDG
Limited quantities (LQ) *1L*
Excepted quantities (EQ) *Code: E2*
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation": *UN 3149 HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE STABILIZED, 5.1 (8), II, ENVIRONMENTALLY HAZARDOUS*

* SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
GHS label elements
The product is classified and labelled according to the Globally Harmonised System (GHS).
Hazard pictograms

GHS03 GHS05 GHS07 GHS09

Signal word *Danger*

Hazard-determining components of labelling:
hydrogen peroxide solution
peracetic acid
acetic acid
Hazard statements
May intensify fire; oxidiser.
Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause respiratory irritation.
Toxic to aquatic life with long lasting effects.
Precautionary statements
Take any precaution to avoid mixing with combustibles.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
Specific treatment (see on this label).
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Directive 2012/18/EU
Named dangerous substances - ANNEX I *None of the ingredients is listed.*

(Contd. on page 10)

(Contd. of page 9)

Seveso category
P8 OXIDISING LIQUIDS AND SOLIDS
E2 Hazardous to the Aquatic Environment
Qualifying quantity (tonnes) for the application of lower-tier requirements *50 t*
Qualifying quantity (tonnes) for the application of upper-tier requirements *200 t*

National regulations:

Waterhazard class: *Water hazard class 1 (Self-assessment): slightly hazardous for water.*
Chemical safety assessment: *A Chemical Safety Assessment has not been carried out.*

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: *PCC-TWR*
Contact: *MSDS.pcc@endress.com*
Abbreviations and acronyms:
ADR: Accord relatif au transport international 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
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Ox. Liq. 1: Oxidizing liquids – Category 1
Ox. Liq. 2: Oxidizing liquids – Category 2
Org. Perox. D: Organic peroxides – Type C/D
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
*** Data compared to the previous version altered.**