

* 1 Identification

Product identifier

Trade name: CA80FE Reagent RK

Synonym: for iron

Article number: CY80FE-MM+SF

Application of the substance / the mixture Laboratory chemicals

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 209-117
 Fax.: +49 (0)7156 209-222
 E-Mail: MSDS.PCC@endress.com

Emergency telephone number: +1 604 682 5050

* 2 Hazard identification

Classification of the substance or mixture



GHS06 Skull and crossbones

Acute Toxicity (Oral) - Category 3 H301 Toxic if swallowed.

Acute Toxicity (Dermal) – Category 3 H311 Toxic in contact with skin.

Acute Toxicity (Inhalation) - Category 3 H331 Toxic if inhaled.



GHS05 Corrosion

Skin Corrosion - Category 1B H314 Causes severe skin burns and eye damage.

Serious Eye Damage - Category 1 H318 Causes serious eye damage.



GHS07

Skin Sensitizer - Category 1 H317 May cause an allergic skin reaction.

Label elements

GHS label elements

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

Hazard pictograms GHS05, GHS06, GHS07

Signal word Danger

Hazard-determining components of labelling:

ammonium thioglycolate
 thioglycolic acid

Hazard statements

Toxic if swallowed, in contact with skin or if inhaled.
 Causes severe skin burns and eye damage.
 May cause an allergic skin reaction.

Precautionary statements

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Take off contaminated clothing and wash it before reuse.

Specific measures (see on this label).

Store locked up.

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

Other hazards

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

* 3 Composition/Information on ingredients

Chemical characterisation: Mixtures

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

Dangerous components:		
5421-46-5	ammonium thioglycolate ⚠ Acute Toxicity (Oral) - Category 3, H301; Acute Toxicity (Dermal) – Category 3, H311; Acute Toxicity (Inhalation) - Category 3, H331; ⚠ Corrosive to Metals - Category 1, H290; ⚠ Skin Sensitizer - Category 1, H317	10-30% *
68-11-1	thioglycolic acid ⚠ Acute Toxicity (Oral) - Category 3, H301; Acute Toxicity (Dermal) – Category 3, H311; Acute Toxicity (Inhalation) - Category 3, H331; ⚠ Skin Corrosion - Category 1B, H314	10-30% *

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

* 4 First-aid measures

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Remove breathing equipment only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

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:

Do not induce vomiting; call for medical help immediately.

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

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:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: *no further information*

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Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

Advice for firefighters

Protective equipment: *Mount respiratory protective device.*

*** 6 Accidental release measures**

Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Wear protective clothing.

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 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.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

*** 7 Handling and storage**

Handling:

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Information about fire - and explosion protection: *Keep respiratory protective device available.*

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 container tightly sealed.*

Storage class: *6.1 B*

Specific end use(s) *No further relevant information available.*

*** 8 Exposure controls/ Personal protection**

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

Control parameters

Ingredients with limit values that require monitoring at the workplace:

68-11-1 thioglycolic acid

EL	TWA: 1 ppm Skin; S(D)
EV	TWA: 3.8 mg/m ³ , 1 ppm Skin

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

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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.
Store protective clothing separately.
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.

Protection of hands:*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

Nitrile rubber, NBR
Natural rubber, NR

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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:*Tightly sealed goggles***Body protection:** *Protective work clothing*

* 9 Physical and chemical properties

Information on basic physical and chemical properties**General Information****Appearance:**

Form:	Fluid
Colour:	Yellow
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value at 20 °C:	3.5

Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	100 °C
Flash point:	Not applicable.

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Flammability (solid, gas):	<i>Not applicable.</i>
Decomposition temperature:	<i>Not determined.</i>
Auto-ignition temperature:	<i>Product is not selfigniting.</i>
Explosive properties:	<i>Product does not present an explosion hazard. Not determined.</i>
Explosion limits:	
Lower:	<i>Not determined.</i>
Upper:	<i>Not determined.</i>
Vapour pressure at 20 °C:	<i>23 hPa</i>
Density at 20 °C:	<i>1.093 g/cm³</i>
Relative density	<i>Not determined.</i>
Vapour density	<i>Not determined.</i>
Evaporation rate	<i>Not determined.</i>
Solubility in / Miscibility with water:	<i>Fully miscible.</i>
Partition coefficient: n-octanol/water:	<i>Not determined.</i>
Viscosity:	
Dynamic:	<i>Not determined.</i>
Kinematic:	<i>Not determined.</i>
Solvent content:	
Water:	<i>64.5 %</i>
Solids content:	<i>0.0 %</i>
Other information	<i>No further relevant information available.</i>

*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 *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

Primary irritant effect:

Skin corrosion/irritation *Caustic effect on skin and mucous membranes.*

Serious eye damage/irritation

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

Respiratory or skin sensitisation *Sensitisation possible through skin contact.*

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Toxic

Corrosive

Irritant

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— CDN —

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

*12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behaviour in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

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.

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 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.

*14 Transport information

UN-Number

ADR, IMDG, IATA

UN2922

UN proper shipping name

ADR

UN2922 CORROSIVE LIQUID, TOXIC, N.O.S.
(ammonium thioglycolate, THIOGLYCOLIC ACID)
CORROSIVE LIQUID, TOXIC, N.O.S. (ammonium thioglycolate, THIOGLYCOLIC ACID)

IMDG

IATA

Corrosive liquid, toxic, n.o.s. (containing ammonium thioglycolate, THIOGLYCOLIC ACID)

Transport hazard class(es)

ADR



Class

8 (CT1) Corrosive substances.

Label

8+6.1

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IMDG


Class 8 Corrosive substances.
Label 8/6.1

IATA


Class 8 Corrosive substances.
Label 8 (6.1)
Packing group II
ADR, IMDG, IATA II
Environmental hazards: Not applicable.
Special precautions for user Warning: Corrosive substances.
Hazard identification number (Kemler code): 86
EMS Number: F-A,S-B
Segregation groups Acids
Stowage Category B
Stowage Code SW2 Clear of living quarters.
Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

Transport/Additional information:
ADR

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
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 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (AMMONIUM THIOGLYCOLATE, THIOGLYCOLIC ACID), 8 (6.1), II

*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 GHS05, GHS06, GHS07

Signal word Danger

Hazard-determining components of labelling:

ammonium thioglycolate
 thioglycolic acid

Hazard statements

Toxic if swallowed, in contact with skin or if inhaled.

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Trade name: CA80FE Reagent RK

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Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Precautionary statements

IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

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.

Take off contaminated clothing and wash it before reuse.

Specific measures (see on this label).

Store locked up.

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

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.*

***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-TWRC

Contact: *MSDS.pcc@endress.com*

Date of the latest revision of the safety data sheet 01/06/2021 / 1

Abbreviations and acronyms:

ICAO: International Civil Aviation Organisation

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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

*** Data compared to the previous version altered.**
