Endress+Hauser 🖪

People for Process Automation

Version 4 (replaces version 3)

Revision: 24.05.2022

Page 1/6

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

1.1 Product identifier

Trade name: <u>Kalibrierlösung CLY11-E 107,00 mS</u> Synonym: Calibration standard CLY11-E 107.00 mS

Article number: 50081906

1.2 Relevant identified uses of the substance or mixture and uses advised against Product category *PC21* Laboratory chemicals

Application of the substance / the mixture Laboratory chemicals

1.3 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

1.4 Emergency telephone number: 00353 01 809 2166 (from 8 am to 10 pm, 7 days a week) 00353 01 809 2566 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 *The product is not classified, according to the CLP regulation.*

2.2 Label elements Labelling according to Regulation (EC) No 1272/2008 Void Hazard pictograms Void Signal word Void Hazard statements Void 2.3 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

3.2 Mixtures Description: *aqueous solution*

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Generally the product does not irritate the skin.

Version 4 (replaces version 3)

Trade name: Kalibrierlösung CLY11-E 107,00 mS

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: *If symptoms persist consult doctor.* **4.2 Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

4.3 Indication of any immediate medical attention and special treatment needed *No further relevant information available.*

SECTION 5: Firefighting measures

5.1 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

5.2 Special hazards arising from the substance or mixture No further relevant information available.

5.3 Advice for firefighters *No further relevant information available.*

Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures *Wear protective clothing.* **6.2 Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

6.4 Reference to other sections

No dangerous substances are released. See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling *No special measures required.* **Information about fire - and explosion protection:** *No special measures required.*

7.2 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: *None.* Storage class: *12* 7.3 Specific end use(s) *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

8.1 Control parameters Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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

8.2 Exposure controls

Appropriate engineering controls No further data; see item 7.

(Contd. on page 3)

Revision: 24.05.2022

Version 4 (replaces version 3)

Trade name: Kalibrierlösung CLY11-E 107,00 mS

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection: Not required.

Hand protection

Protective gloves and protective skin cream No chemical-protective gloves required.

Material of gloves

Recommended thickness of the material: ≥ 0.11 mm

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 Not required.

Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information	
Physical state	Fluid
Colour:	Colourless
Odour:	Odourless
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling	
range	100 °C
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH at 20 °C	>6
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic:	Not determined.
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:	1.08 g/cm³
Relative density	Not determined.
Vapour density	Not determined.
9.2 Other information	
Appearance:	
Form:	Fluid

(Contd. on page 4)

Revision: 24.05.2022

(Contd. of page 2)

Trade name: Kalibrierlösung CLY11-E 107,00 mS

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: 990.0 % Solids content: 0.0 % Change in condition Evaporation rate Not determined. Information with regard to physical hazard classes Explosives Void Flammable gases Void Flammable gases Void Gases under pressure Void Gases under pressure Void Flammable solids Void Self-reactive substances and mixtures Void Self-reactive substances and mixtures Void Syrophoric liquids Void Substances and mixtures Void Substances Void Substances and mixtures Void Substances Substances And Mixtures Void Substances And Mixtures Void Substances And Mixtures Void Substances And M	Important information on protoction of boolth	(Contd. of page 3)
Auto-ignition temperature:Product is not selfigniting.Explosive properties:Product does not present an explosion hazard. Not determined.Solvent content:Not determined.Water:>90.0 %Solids content:0.0 %Change in conditionNot determined.Evaporation rateNot determined.Information with regard to physical hazard classesNot determined.ExplosivesVoidFlammable gasesVoidGases under pressureVoidGases under pressureVoidFlammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidSylph-neiting substances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidOxidising liquidsVoidOxidising liquidsVoidOxidising liquidsVoidOxidising solidsVoidOxidising solidsVoidSelf-neating substances and mixturesVoidOxidising liquidsVoidOxidising liquidsVoidOxidising solidsVoidOxidising solidsVoidOxidising solidsVoidOxidising solidsVoidOrganic peroxidesVoidOrganic peroxidesVoidOrganic peroxidesVoidOrganic peroxidesVoidOrganic peroxidesVoidOrganic peroxidesVoid		
Explosive properties:Product does not present an explosion hazard. Not determined.Solvent content:		Product is not solfianiting
Not determined. Solvent content: Water: >90.0 % Solids content: 0.0 % Change in condition 0.0 % Evaporation rate Not determined. Information with regard to physical hazard classes Explosives Void Flammable gases Void Gases under pressure Void Flammable liquids Void Gases under pressure Void Flammable solids Void Flammable solids Void Self-reactive substances and mixtures Void Substances and mixtures, which emit flammable gases in contact with water Void Void Substances and mixtures, woid Void Substances and mixtures, which emit flammable gases in contact with water Void Void Oxidising solids Void Oxidising solids Void Oxidising solids Void Oxidising te proxides Void Corrosive to metals Void		
Solvent content: >90.0 % Water: >90.0 % Solids content: 0.0 % Change in condition Evaporation rate Evaporation rate Not determined. Information with regard to physical hazard Information with regard to physical hazard classes Explosives Explosives Void Flammable gases Void Aerosols Void Gases under pressure Void Flammable liquids Void Flammable solids Void Self-reactive substances and mixtures Void Pyrophoric liquids Void Substances and mixtures, which emit flammable gases in contact with water gases in contact with water Void Oxidising solids Void Oxidising solids Void Oxidising solids Void	Explosive properties.	
Water:>90.0 %Solids content:0.0 %Change in conditionEvaporation rateEvaporation rateNot determined.Information with regard to physical hazard classesClassesExplosivesVoidFlammable gasesVoidAerosolsVoidOxidising gasesVoidGases under pressureVoidFlammable liquidsVoidFlammable solidsVoidFlammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidSubstances and mixturesVoidSubstances and mixturesVoidOxidising liquidsVoidOxidising solidsVoidOxidising solidsVoidOxidising solidsVoidOxidising solidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid	Solvent content:	Not determined.
Solids content:0.0 %Change in condition0.0 %Evaporation rateNot determined.Information with regard to physical hazardclassesExplosivesVoidFlammable gasesVoidAerosolsVoidOxidising gasesVoidGases under pressureVoidFlammable liquidsVoidFlammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidSubstances and mixturesVoidSubstances and mixturesVoidOxidising liquidsVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid		>90.0 %
Change in condition Not determined. 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 Self-heating substances and mixtures Void Substances and mixtures, which emit flammable gases in contact with water gases in contact with water Void Oxidising solids Void Oxidising solids Void Oxidising solids Void Oxidising solids Void		
Evaporation rateNot determined.Information with regard to physical hazard classesVoidExplosivesVoidFlammable gasesVoidAerosolsVoidOxidising gasesVoidGases under pressureVoidFlammable liquidsVoidFlammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidSelf-heating substances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidOxidising liquidsVoidOxidising solidsVoidOxidising solidsVoidOxidising solidsVoidOxidising solidsVoidOxidising solidsVoidOrganic peroxidesVoidVoidVoidOrrosive to metalsVoid		0.0 /0
Information with regard to physical hazard classesExplosivesVoidFlammable gasesVoidAerosolsVoidOxidising gasesVoidGases under pressureVoidFlammable liquidsVoidFlammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidSelf-heating substances and mixturesVoidSelf-heating substances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidOxidising liquidsVoidOxidising solidsVoidOxidising solidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid	-	Not determined
classesExplosivesVoidFlammable gasesVoidAerosolsVoidOxidising gasesVoidGases under pressureVoidFlammable liquidsVoidFlammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidSelf-heating substances and mixturesVoidSelf-heating substances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid	•	Not dotominod.
ExplosivesVoidFlammable gasesVoidAerosolsVoidOxidising gasesVoidGases under pressureVoidFlammable liquidsVoidFlammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidSelf-heating substances and mixturesVoidSelf-heating substances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidVoidVoid	• • • •	
Flammable gasesVoidAerosolsVoidOxidising gasesVoidGases under pressureVoidFlammable liquidsVoidFlammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidPyrophoric solidsVoidSelf-heating substances and mixturesVoidSelf-heating substances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidSubstances and mixtures, which emit flammableVoidGases in contact with waterVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid		
AerosolsVoidOxidising gasesVoidGases under pressureVoidFlammable liquidsVoidFlammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidPyrophoric solidsVoidSelf-heating substances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidSubstances and mixtures, which emit flammablegases in contact with waterVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid	•	
Oxidising gasesVoidGases under pressureVoidFlammable liquidsVoidFlammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidPyrophoric solidsVoidSelf-heating substances and mixturesVoidSubstances and mixturesVoidSubstances and mixturesVoidOxidising substances and mixturesVoidOxidising liquidsVoidOxidising solidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid		
Gases under pressureVoidFlammable liquidsVoidFlammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidPyrophoric solidsVoidSelf-heating substances and mixturesVoidSubstances and mixtures, which emit flammableVoidgases in contact with waterVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid		
Flammable liquidsVoidFlammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidPyrophoric solidsVoidSelf-heating substances and mixturesVoidSubstances and mixtures, which emit flammableVoidgases in contact with waterVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid		
Flammable solidsVoidSelf-reactive substances and mixturesVoidPyrophoric liquidsVoidPyrophoric solidsVoidSelf-heating substances and mixturesVoidSubstances and mixtures, which emit flammableVoidgases in contact with waterVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid		
Self-reactive substances and mixturesVoidPyrophoric liquidsVoidPyrophoric solidsVoidSelf-heating substances and mixturesVoidSubstances and mixtures, which emit flammableVoidgases in contact with waterVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid		
Pyrophoric liquidsVoidPyrophoric solidsVoidSelf-heating substances and mixturesVoidSubstances and mixtures, which emit flammableVoidgases in contact with waterVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid		
Pyrophoric solidsVoidSelf-heating substances and mixturesVoidSubstances and mixtures, which emit flammablegases in contact with watergases in contact with waterVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid		
Self-heating substances and mixturesVoidSubstances and mixtures, which emit flammablegases in contact with waterVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid		
Substances and mixtures, which emit flammablegases in contact with waterVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid		
gases in contact with waterVoidOxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid		
Oxidising liquidsVoidOxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid	•	
Oxidising solidsVoidOrganic peroxidesVoidCorrosive to metalsVoid	0	
Organic peroxidesVoidCorrosive to metalsVoid		
Corrosive to metals Void		
Desensitised explosives Void		
	Desensitised explosives	Void

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity Based on available data, the classification criteria are not met. Skin corrosion/irritation Based on available data, the classification criteria are not met. Serious eye damage/irritation Based on available data, the classification criteria are not met. Respiratory or skin sensitisation Based on available data, the classification criteria are not met. Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. Reproductive toxicity Based on available data, the classification criteria are not met. STOT-single exposure Based on available data, the classification criteria are not met. STOT-repeated exposure Based on available data, the classification criteria are not met. Aspiration hazard Based on available data, the classification criteria are not met.

(Contd. on page 5)

(Contd. of page 3)

Revision: 24.05.2022

according to 1907/2006/EC, Article 31

Printing date 24.05.2022

Version 4 (replaces version 3)

Trade name: Kalibrierlösung CLY11-E 107,00 mS

11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects

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.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation Smaller quantities can be disposed of with household waste.

European waste catalogue

16 05 09 discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

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

14.1 UN number or ID number ADR, ADN, IMDG, IATA 14.2 UN proper shipping name ADR, ADN, IMDG, IATA 14.3 Transport hazard class(es)	Void Void
ADR, ADN, IMDG, IATA Class 14.4 Packing group ADR, IMDG, IATA	Void Void
14.5 Environmental hazards: Marine pollutant: 14.6 Special precautions for user	No Not applicable.
14.7 Maritime transport in bulk according to IMC instruments	Not applicable.
Transport/Additional information: UN "Model Regulation":	Not dangerous according to the above specifications. Void (Contd. on page 6)

Revision: 24.05.2022

(Contd. of page 4)

Revision: 24.05.2022

Trade name: Kalibrierlösung CLY11-E 107,00 mS

(Contd. of page 5)

Page 6/6

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Labelling according to Regulation (EC) No 1272/2008 *Void* Hazard pictograms *Void* Signal word *Void* Hazard statements *Void*

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

National regulations:

Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water. **15.2 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.

16.3 Recommended restriction of use

Department issuing SDS: PCC-TWR

Contact: MSDS.pcc@endress.com

Date of previous version: 12.05.2021

Version number of previous version: 3

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

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

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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

* Data compared to the previous version altered.