

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.01.2023

Version number 9 (replaces version 8)

Revision: 23.01.2023

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

### 1.1 Product identifier

· **Trade name:** **RL-G**

· **Article number:** 205204

· **Description:** Cleaning solution

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

· **Product category:** PC21 Laboratory chemicals

· **Process category:** PROC15 Use as laboratory reagent

· **Application of the substance / the preparation:** Cleaning of galvanic oxygen sensors

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

· **Manufacturer/Supplier:**

Xylem Analytics Germany GmbH  
WTW  
Am Achalaich 11  
82362 Weilheim  
Germany  
Tel. +49 881 183-0

· **Further information obtainable from:** E-mail: [Info.WTW@xylem.com](mailto:Info.WTW@xylem.com)

· **1.4 Emergency telephone number:** Chemtrec: (USA & Canada) 800-424-9300 (International) 001 703-527-3887

Lieferant / Supplier:  
Carl Roth GmbH + Co KG  
Schomperlenstr. 3-5  
76185 Karlsruhe, Germany  
+49 721 5605 0  
[sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008:**



GHS05 corrosion

Met. Corr.1 H290 May be corrosive to metals.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

### 2.2 Label elements:

· **Labelling according to Regulation (EC) No 1272/2008:** The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms:**



GHS05

· **Signal word:** Warning

· **Hazard statements:**

H290 May be corrosive to metals.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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· **Precautionary statements:**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

· **Labelling of packages where the contents do not exceed 125 ml:**

· **Hazard pictograms:**



GHS07

· **Signal word:** Warning

· **Hazard statements:** Void

· **Precautionary statements:**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

· **2.3 Other hazards** No further relevant information available.

## SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:**

Mixture, consisting of the following components:

Water, acetic acid

· **Dangerous components:**

CAS: 64-19-7	acetic acid	20 - < 25%
EINECS: 200-580-7	Flam. Liq. 3, H226;  Skin Corr. 1A, H314;  Acute Tox. 4, H312; Acute Tox. 4, H332	
Index number: 607-002-00-6	Specific concentration limits: Skin Corr. 1A; H314: C ≥ 90 % Skin Corr. 1B; H314: 25 % ≤ C < 90 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Dam. 1; H318: C ≥ 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %	

· **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**

· **After inhalation:** Supply fresh air or oxygen; call for doctor.

· **After skin contact:**

Wash with plenty of water.

Take off immediately all contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

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

· **After swallowing:**

Make victim drink water immediately (2 glasses at most).

Do not induce vomiting (risk of perforation)

Do not attempt to neutralize.

Call a doctor immediately.

· **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.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- **Suitable extinguishing agents:** The product is not flammable. Extinguishing agent to suit environment.

### 5.2 Special hazards arising from the substance or mixture

- Development of corrosive and flammable vapors in the event of fire.

### 5.3 Advice for firefighters

- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**  
 Suppress gases/fumes/haze with water spray.  
 Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment (see section 8).

### 6.2 Environmental precautions:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
 Wash off residuals with water.  
 Ensure adequate ventilation.

### 6.4 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.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.  
 Prevent formation of aerosols.  
 Wear personal protective equipment (see section 8)

- **Information about fire - and explosion protection:** Development of explosive acetic acid/air mixtures possible when heated.

### 7.2 Conditions for safe storage, including any incompatibilities

- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store tightly sealed at temperatures between 15 °C and 25 °C.

### 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:**

#### 64-19-7 acetic acid

IOELV	Short-term value: 50 mg/m <sup>3</sup> , 20 ppm
	Long-term value: 25 mg/m <sup>3</sup> , 10 ppm

- **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.
- **Individual protection measures, such as personal protective equipment**
  - **General protective and hygienic measures:**  
 Avoid contact with the eyes and skin.  
 Do not inhale gases / fumes / aerosols.

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Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and at the end of work.

· **Respiratory protection:** Only required when fog or aerosols are generated or when the workplace is not sufficiently ventilated.

· **Recommended filter device for short term use:** Filter E

· **Hand protection** Protective gloves

· **Material of gloves**

Nitrile rubber, NBR

Butyl rubber, BR

· **Eye/face protection** Safety glasses

· **Environmental exposure controls**

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 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · General Information

· **Physical state**

Fluid

· **Colour:**

Colourless

· **Odour:**

Pungent

· **Melting point/freezing point:**

Undetermined.

· **Boiling point or initial boiling point and boiling range**

100 °C

· **Flammability**

Product is not flammable.

· **Flash point:**

Not applicable.

· **pH at 20 °C**

1.7

· **Viscosity:**

· **Kinematic viscosity**

Not determined.

· **Dynamic:**

Not determined.

· **Solubility**

· **water:**

Fully miscible.

· **Vapour pressure:**

Not determined.

· **Density and/or relative density**

· **Density at 20 °C:**

1.01 g/cm<sup>3</sup>

### · 9.2 Other information

· **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.

· **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**

Void

· **Oxidising solids**

Void

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· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b> May be corrosive to metals.	
· <b>Desensitised explosives</b>	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**  
Violent reactions with strong alkalines an oxidants (e. g. chrome(VI) oxide, chromosulfuric acid, potassium permanganate, sodium peroxide, perchloric acid, phosphorus halides, hydrogen peroxide).  
Formation of hydrogen possible with metals and alloys (risk of explosion).
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** In case of fire, see section 5.

## SECTION 11: Toxicological information

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

- **Acute toxicity**  
No quantitative toxicity data are available for this product.  
Based on available data, the classification criteria are not met.

#### · LD/LC50 values relevant for classification:

##### 64-19-7 acetic acid

Oral	LD50	3310 mg/kg (Rat)
Dermal	LD50	1060 mg/kg (Rabbit)
Inhalative	LC50	11.4 mg/l, 4 h (Rat) (IUCLID)

- **Skin corrosion/irritation** Causes skin irritation.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **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.
- **11.2 Information on other hazards**

#### · Endocrine disrupting properties

None of the ingredients is listed.

## SECTION 12: Ecological information

### · 12.1 Toxicity

#### · Aquatic toxicity:

##### 64-19-7 acetic acid

EC50	47 mg/l, 24 h (Daphnia magna) (IUCLID)
LC50	75 mg/l, 96 h (Lepomis macrochirus) (IUCLID)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.

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- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment** Not applicable.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
  - **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**

Disposal must comply with the relevant local regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.
  - **Uncleaned packaging:**
    - **Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning. Packagings that may not be cleansed are to be disposed of in the same manner as the product.
    - **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## SECTION 14: Transport information

· <b>14.1 UN number or ID number</b>	
· <b>ADR/RID, IMDG, IATA</b>	UN2790
· <b>14.2 UN proper shipping name</b>	
· <b>IMDG, IATA</b>	ACETIC ACID SOLUTION
· <b>14.3 Transport hazard class(es)</b>	
· <b>ADR/RID, IMDG, IATA</b>	
	
· <b>Class</b>	8 Corrosive substances.
· <b>Label</b>	8
· <b>14.4 Packing group</b>	
· <b>ADR/RID, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Warning: Corrosive substances.
· <b>Hazard identification number (Kemler code):</b>	80
· <b>EMS Number:</b>	F-A,S-B
· <b>Segregation groups</b>	(SGG1) Acids
· <b>Stowage Category</b>	A
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>ADR/RID</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Transport category</b>	3
· <b>Tunnel restriction code</b>	E

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· **UN "Model Regulation":** UN 2790 ACETIC ACID SOLUTION, 8, III

## SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**

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

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

· **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.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

· **Relevant phrases**

H226 Flammable liquid and vapour.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H332 Harmful if inhaled.

· **Date of previous version:** 08.06.2021

· **Version number of previous version:** 8

· **Abbreviations and acronyms:**

ICAO: International Civil Aviation Organisation

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

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)

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

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2