Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.11.2025 Version number 8 (replaces version 7) Revision: 19.11.2025

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

· **1.1 Product identifier**

· **Trade name: R/ N511**

· **Article number:** 821085

· **Description:** Color reagent

· **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:** Nitrite measurement with analyzer

· **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

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

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008:**
Met. Corr.1 H290 May be corrosive to metals.
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.

· **Precautionary statements:**
P280 Wear protective gloves/protective clothing/eye protection/face protection.

(Contd. on page 2)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.11.2025 Version number 8 (replaces version 7) Revision: 19.11.2025

Trade name: R/ N511

(Contd. of page 1)

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

· **2.3 Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components with endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more.

Environmental information: The substance/mixture does not contain components with endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:**
Mixture of substances listed below with nonhazardous additions.
Water, phosphoric acid, sulfanilamide

· **Dangerous components:**

CAS: 7664-38-2 EINECS: 231-633-2 Index number: 015-011-00-6	phosphoric acid Skin Corr. 1B, H314; Acute Tox. 4, H302 Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %	10-<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.
Seek immediate medical advice.

· **After skin contact:**
Wash skin with water or shower.
Take off immediately all contaminated clothing and wash it before reuse.
Seek immediate medical advice.

· **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
Rinse opened eye for at least 15 minutes under running water.
Consult an ophthalmologist immediately.
Remove contact lenses.

· **After swallowing:**
Rinse out mouth and then drink plenty of water.
Call a doctor immediately.
Do not induce vomiting (risk of perforation)
Do not attempt to neutralize.

· **4.2 Most important symptoms and effects, both acute and delayed**
The most important known symptoms and effects are described on the labelling (see section 2.2) and/or in chapter 11.

(Contd. on page 3)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.11.2025 Version number 8 (replaces version 7) Revision: 19.11.2025

Trade name: R/ N511

(Contd. of page 2)

· **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:** The product is not flammable. Extinguishing agent to suit environment.
· **For safety reasons unsuitable extinguishing agents:**
There are no extinguishing agent restrictions for this substance/mixture.

· **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Phosphorus oxides (e.g. P2O5)

· **5.3 Advice for firefighters**
· **Protective equipment:**
Stay in the danger zone only with self-contained breathing apparatus. Avoid skin contact by keeping a safe distance or wearing suitable protective clothing.
· **Additional information**
Suppress gases/fumes/haze with water spray.
Do not allow extinguishing water to enter the surface water or groundwater system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Wear personal protective equipment (see section 8).

· **6.2 Environmental precautions:** 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).
Dispose of the material collected according to regulations.
Wash off residuals with water.

· **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:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Requirements to be met by storerooms and receptacles:**
No special requirements.
Recommendation: Store in the original container.
· **Information about storage in one common storage facility:** No special requirements.
· **Further information about storage conditions:**
Store in a cool place.
Protect from exposure to the light.

(Contd. on page 4)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.11.2025 Version number 8 (replaces version 7) Revision: 19.11.2025

Trade name: R/ N511

(Contd. of page 3)

· **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:**	
CAS: 7664-38-2 phosphoric acid	
IOELV	Short-term value: 2 mg/m³ Long-term value: 1 mg/m³

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

· **8.2 Exposure controls**

· **Appropriate engineering controls** No further data; see section 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.
Take off contaminated clothing and wash it before reuse.
Wash hands before breaks and at the end of work.

· **Respiratory protection:**
Use suitable respiratory protective device only when aerosol or mist is formed.
Recommended filter type: Combination filter E-P2

· **Hand protection** Protective gloves

· **Material of gloves**
- For full contact:
Nitrile rubber, NBR
Recommended material thickness: ≥ 0.11 mm
Breakthrough time: 480 min

- For splash contact:
Nitrile rubber
Recommended thickness of the material: ≥ 0.11 mm
Breakthrough time: 480 min

· **Eye/face protection** Safety goggles with side protection

· **Body protection:** Acid resistant protective clothing

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Physical state**	Liquid
· **Colour:**	Colourless
· **Odour:**	Odourless
· **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
· **Viscosity:**	
· **Kinematic viscosity**	No data available.
· **Dynamic viscosity:**	No data available.

(Contd. on page 5)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.11.2025 Version number 8 (replaces version 7) Revision: 19.11.2025

Trade name: R/ N511

(Contd. of page 4)

· **Solubility**	
· **water:**	Fully miscible.
· **Vapour pressure at 20 °C:**	23 hPa
· **Density and/or relative density**	
· **Density:**	No data available.
· **9.2 Other information**	
· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Information with regard to physical hazard classes**	Void
· **Corrosive to metals**	May be corrosive to metals.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

· **10.2 Chemical stability**

· **Thermal decomposition / conditions to be avoided:**
The product is chemically stable under normal ambient conditions (room temperature).

· **10.3 Possibility of hazardous reactions** 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:**
Alkalis
Metals

· **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.

· **Acute toxicity estimate of the mixture (ATE) - Calculation method:**

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

ATE (Acute Toxicity Estimates)		
Oral	LD50	9351 mg/kg (Rat)

CAS: 7664-38-2 phosphoric acid		
Oral	LD50	1250 mg/kg (Rat) (RTECS)

· **Primary irritant effect:**

· **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.

(Contd. on page 6)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.11.2025 Version number 8 (replaces version 7) Revision: 19.11.2025

Trade name: R/ N511

(Contd. of page 5)

· **Aspiration hazard** Based on available data, the classification criteria are not met.

· **11.2 Information on other hazards**

· **Endocrine disrupting properties**

The substance/mixture does not contain components that have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1 % or more have endocrine disrupting properties.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

CAS: 7664-38-2 phosphoric acid	
EC50 (static)	> 100 mg/l, 48 h (Daphnia magna) (OECD 202)
EC50 (static)	> 1000 mg/l, 3 h (activated sludge) (OECD 209)
ErC50 (static)	> 100 mg/l, 72 h (Desmodesmus subspicatus) (OECD 201)
NOEC (static)	> 100 mg/l, 72 h (Desmodesmus subspicatus) (OECD 201)

· **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**
This product does not contain components classified as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in concentrations of 0.1% or higher.

· **12.6 Endocrine disrupting properties**
The substance/mixture does not contain components that have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1 % or more have endocrine disrupting properties.

· **12.7 Other adverse effects** No further relevant information available.
· **General notes:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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

· **14.1 UN number or ID number**
· **ADR/RID, IMDG, IATA** UN1805

(Contd. on page 7)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.11.2025 Version number 8 (replaces version 7) Revision: 19.11.2025

Trade name: R/ N511

(Contd. of page 6)

· **14.2 UN proper shipping name**
· **ADR/RID** 1805 PHOSPHORIC ACID, SOLUTION mixture
· **IMDG, IATA** PHOSPHORIC ACID, SOLUTION

· **14.3 Transport hazard class(es)**

· **ADR/RID, IMDG, IATA**



· **Class** 8 Corrosive substances.
· **Label** 8

· **14.4 Packing group**
· **ADR/RID, IMDG, IATA** III

· **14.5 Environmental hazards:**
· **Marine pollutant:** No

· **14.6 Special precautions for user** Warning: Corrosive substances.
· **Hazard identification number (Kemler code):** 80
· **EMS Number:** F-A,S-B
· **Segregation groups** (SGG1) Acids
· **Stowage Category** A
· **Segregation Code** SG36 Stow "separated from" SGG18-alkalis.
SG49 Stow "separated from" SGG6-cyanides

· **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.

· **ADR/RID**
· **Limited quantities (LQ)** 5L
· **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
· **Transport category** 3
· **Tunnel restriction code** E

· **UN "Model Regulation":** UN 1805 PHOSPHORIC ACID, SOLUTION MIXTURE, 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.

(Contd. on page 8)

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.11.2025 Version number 8 (replaces version 7) Revision: 19.11.2025

Trade name: R/ N511

(Contd. of page 7)

· **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**
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

· **Date of previous version:** 13.10.2021

· **Version number of previous version:** 7

· **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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Met. Corr.1: Corrosive to metals – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2