

**Buffer Solution pH 5.00 (A) 20°C (Citrate buffer)**

Date 13.4.2023

Previous date: 4.2.2013

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier****1.1.1 Commercial Product Name**

Buffer Solution pH 5.00 (A) 20°C (Citrate buffer)

**1.1.2 Product code**FF471 10 L, FF222 1 L, FF222 500 ML  
UFI FF91-U0KR-U001-DH2K**1.2 Relevant identified uses of the substance or mixture and uses advised against****1.2.1 Recommended use**

Laboratory chemical

**1.3 Details of the supplier of the safety data sheet****1.3.1 Supplier**

Oy FF-Chemicals Ab

**Street address**

Teollisuustie 4

**Postcode and post office**

FI-90830 HAUKIPUDAS

Finland

**Telephone**

+358 8 5563 193

**Telefax**

+358 8 5563 194

**Business ID**

05851808

**Email**

ffc@ff-chemicals.fi

**1.4 Emergency telephone number****1.4.1 Telephone number, name and address**

Please contact the Emergency Centre in your own country.

**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****1272/2008 (CLP)**

Skin Irrit. 2, H315

Eye Irrit. 2, H319

**2.2 Label elements****1272/2008 (CLP)**

GHS07

Signal word

**Warning****Hazard Statements**

H315

Causes skin irritation.

H319

Causes serious eye irritation.

**Precautionary Statements**

P280

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

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.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Hazardous components****CAS/EC and  
Reg.number****EINECS****Chemical name of the  
substance****Concentration****Classification**

5949-29-1

Citric acid

~ 2 %

Eye Irrit. 2, H319

1310-73-2

215-185-5

Sodium hydroxide

~ 1 %

Skin Corr. 1A, H314

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**3.3 Other information**

The full text of hazard statements are given in chapter 16.

**4. FIRST AID MEASURES****4.1 Description of first aid measures****4.1.2 Inhalation**

Move the exposed to fresh air.

**4.1.3 Skin contact**

Flush with copious amounts of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

**4.1.4 Eye contact**

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. If eye irritation persists: Get medical advice/attention.

**4.1.5 Ingestion**

Rinse mouth with water and give much water to drink.

**4.2 Most important symptoms and effects, both acute and delayed**

Causes skin irritation. Causes serious eye irritation.

**4.3 Indication of immediate medical attention and special treatment needed**

If feeling unwell, seek medical advice.

**5. FIREFIGHTING MEASURES****5.1 Extinguishing media****5.1.1 Suitable extinguishing media**

Extinguishing media should be suitable to surrounding materials.

**5.1.2 Extinguishing media which must not be used for safety reasons**

For this substance/mixture no limitations of extinguishing agents are given.

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

Not combustible.

**5.3 Advice for firefighters**

Protective equipment and precautions for firefighters.

**6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Evacuate the area. Wear personal protective equipment.

**6.2 Environmental precautions**

No specific instructions.

**6.3 Methods and materials for containment and cleaning up**

Absorb in appropriate material. Pick up in containers for waste treatment. Clean contaminated surfaces. Ventilate the area.

**6.4 Reference to other sections**

For disposal see section 13.

**7. HANDLING AND STORAGE****7.1 Precautions for safe handling**

General industrial hygiene practice.

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

Keep container tightly closed.

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters****8.1.1 Threshold limits**1310-73-2 Sodium hydroxide 2 mg/m<sup>3</sup> (15 min)**8.1.2 Other information on limit values**

Finnish limit values above.

**8.2 Exposure controls****8.2.1 Appropriate engineering controls**

Obey good laboratory practices, good hygiene and safety guidelines. Adequate ventilation needed.

**8.2.2 Individual protection measures****8.2.2.1 Respiratory protection**

Required when vapours/aerosols are generated.

**8.2.2.2 Hand protection**

Protective gloves EN 374

**8.2.2.3 Eye/face protection**

Tightly fitting goggles or whole mask EN 166

**8.2.2.4 Skin protection**

Lab coat

**8.2.3 Environmental exposure controls**

No special precautionary measures necessary.

**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Important Health Safety and Environmental Information****9.1.1 Appearance**

Liquid

**9.1.2 Odour**

No data available.

**9.1.3 Odour threshold**

No data available.

**9.1.4 pH**

5.00 (20 °C)

**9.1.5 Melting point/freezing point**

No data available.

**9.1.6 Initial boiling point and boiling range**

No data available.

**9.1.7 Flash point**

Not applicable.

**9.1.8 Evaporation rate**

No data available.

**9.1.9 Flammability (solid, gas)**

Not flammable.

**9.1.10 Explosive properties****9.1.10.1 Lower explosion limit**

No data available.

**9.1.10.2 Upper explosion limit**

No data available.

**9.1.11 Vapour pressure**

No data available.

**9.1.12 Vapour density**

No data available.

**9.1.13 Relative density**

No data available.

**9.1.14 Solubility(ies)****9.1.14.1 Water solubility**

Soluble in water.

**9.1.15 Partition coefficient: n-octanol/water**

No data available.

**9.1.16 Auto-ignition temperature**

Not applicable.

**9.1.17 Decomposition temperature**

No data available.

**9.1.18 Viscosity**

No data available.

**9.1.19 Explosive properties**

Not explosive

**9.1.20 Oxidising properties**

No data available.

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**9.2 Other information**

No data available.

**10. STABILITY AND REACTIVITY****10.1 Reactivity**

The product is chemically stable under standard ambient conditions.

**10.2 Chemical stability**

The product is chemically stable under standard ambient conditions.

**10.3 Possibility of hazardous reactions**

No dangerous reaction known under conditions of normal use.

**10.4 Conditions to avoid**

Strong heating.

**10.5 Incompatible materials**

No data available.

**10.6 Hazardous decomposition products**

No data available.

**11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****11.1.1 Acute toxicity**

Based on available data, the classification criteria are not met.

**11.1.2 Irritation and corrosion**

Causes skin irritation. Causes serious eye irritation.

**11.1.3 Sensitisation**

Based on available data, the classification criteria are not met.

**11.1.4 Subacute, subchronic and prolonged toxicity**

Based on available data, the classification criteria are not met.

**11.1.5 STOT-single exposure**

Based on available data, the classification criteria are not met.

**11.1.6 STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**11.1.7 Aspiration hazard**

Based on available data, the classification criteria are not met.

**11.1.8 Other information on acute toxicity**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**12. ECOLOGICAL INFORMATION****12.1 Toxicity****12.1.1 Aquatic toxicity**

Based on available data, the classification criteria are not met.

**12.2 Persistence and degradability****12.2.1 Biodegradation**

No data available.

**12.3 Bioaccumulative potential**

No data available.

**12.4 Mobility in soil**

No data available.

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**12.5 Results of PBT and vPvB assessment**

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.

**12.6 Other adverse effects**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

Dispose of contents/container in accordance with local/regional/national/international regulations.  
Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

**14. TRANSPORT INFORMATION**

- |  |  |
|--|--|
| <b>14.1 UN number</b>  | Not dangerous goods  |
| <b>14.2 UN proper shipping name</b>  | Not dangerous goods  |
| <b>14.3 Transport hazard class(es)</b>   | Not dangerous goods  |
| <b>14.4 Packing group</b>  | Not dangerous goods  |
| <b>14.5 Environmental hazards</b>  | Not dangerous goods  |
| <b>14.6 Special precautions for users</b>  | Not classified as dangerous in the meaning of transport regulations. |
| <b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | Not applicable.  |

**15. REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

The safety data sheet is in accordance with Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Take note of Dir 94/33/EC on the protection of young people at work.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59): This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out.

**16. OTHER INFORMATION****16.1 Additions, Deletions, Revisions**

1.1.2, 1.4.1, 2, 3, 4.1.2, 4.2, 5.1.2, 5.3, 7.3, 8.1.1, 11.1.2, 11.1.8, 12.5, 12.6, 13.1, 15.1, 16.1, 16.3

**16.3 Key literature references and sources for data**

ECHA C&L Inventory  
CLP Regulation (1272/2008/EY)

**16.4 Classification procedure**

CLP regulation (1272/2008/EC)

**16.5 List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements**

H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

**16.6 Training advice**

Obey good laboratory practices, good hygiene and safety guidelines.

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**16.8 Additional information available from:**

Oy FF-Chemicals Ab, Finland, tel. +358 8 5563 193  
ffc@ff-chemicals.fi

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.