

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 740393.3000	Buffer ELU-EF (3000 mL)	Page: 1/7
Printing date: 12.05.2021	Date of issue: 20.05.2019	

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

### 1.1 Product identifier

REF 740393.3000  
 Product name Buffer ELU-EF (3000 mL)

REACH Registration number(s): see SECTION 3.1/3.2 or  
 A registration number for the substance(s) does not exist because the annual tonnage does not require registration or the substance or its use is excluded from registration.

1 x 3000 mL ELU-EF

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

**Relevant identified uses**  
 Product for analytical use.  
 Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0  
 The exposure scenario is integrated into sections 1-16.

**Uses advised against**  
 not described

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

**Manufactured by:**  
 MACHEREY-NAGEL GmbH & Co. KG  
 Valenciener Str. 11, 52355 Düren, GERMANY  
 Tel.: +49 2421 969 0 E-mail: sds@mn-net.com (msds@mn-net.com)

### 1.4 Emergency telephone number

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.  
 DE: Gemeinsames Giftinformationszentrum (GGIZ) 99089 Erfurt tel. +49 361 730 730

You find our current versions of SDS (22 languages) in Internet: <http://www.mn-net.com/SDS>

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

3000 mL ELU-EF



GHS02 GHS07

Signal word WARNING

Hazard identification	Hazard classes/categories
H226	Flam. Liq. 3
H319	Eye Irrit. 2

### 2.2 Label elements

According CLP directive inner packages must be only labelled with GHS symbol(s) and product identifier(s) (EU 1272/2008 Annex I - 1.5.1.2).

Harmful chemicals/mixtures with signal word: **WARNING** and highly flammable chemicals/mixtures must not be labelled with H and P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2).

3000 mL ELU-EF



GHS02 GHS07

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 740393.3000  
Printing date: 12.05.2021

Buffer ELU-EF (3000 mL)  
Date of issue: 20.05.2019

Page: 2/7

Signal word: WARNING

H226, H319  
Flammable liquid and vapour. Causes serious eye irritation.

P210, P280sh  
Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves/eye protection.

## 2.3 Other hazards

### Possible hazards from physicochemical properties

In the case of pH values are less than 5 or higher than 9 then it is irritant. Flammable properties. Vapour forms explosive mixtures with air. ---

### Information pertaining to particular risks to human and possible symptoms

-

### Information pertaining to particular risks to the environment

PBT: not applicable  
vPvB: not applicable

### Other hazards

---

## SECTION 3: Composition/information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 3000 mL ELU-EF

Chemical:	<i>2-propanol</i>	CAS No.:	67-63-0
Classification:	H225, Flam. Liq. 2, H319, Eye Irrit. 2, H336, STOT SE 3		
Formula:	C <sub>3</sub> H <sub>8</sub> O		
Pseudonym:	isopropanol, IPA, propan-2-ol		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119457558-25-XXXX		
EC No.:	200-661-7	Indice No.:	603-117-00-0
RTECS:	NT8050000	MFCD:	00011674
KE No.:	KE-29363		
Concentration:	10 - <15 %		
acc. CLP (GHS):	H226, Flam. Liq. 3, H319, Eye Irrit. 2		

Chemical:	<i>potassium chloride</i>	CAS No.:	7447-40-7
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	KCl		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119539416-36-xxxx		
EC No.:	231-211-8	MFCD:	00011360
RTECS:	TS8050000		
KE No.:	KE-29086		
Concentration:	1 - <10 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

Chemical:	<i>chemicals/mixture &lt; 1%</i>	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
TSCA Inventory:	all listed, <1%		
KE No.:	listed		
Concentration:	0.1 - <1 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

### 3.3 Remarks

When not listed, mixtures are added with water [CAS No. 7732-18-5] to 100%.

List of H and P phrases: see section 16.1

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 740393.3000

Buffer ELU-EF (3000 mL)

Page: 3/7

Printing date: 12.05.2021

Date of issue: 20.05.2019

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice.

#### 4.1.1 After SKIN Contact

Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water. (If possible) use soap.

#### 4.1.2 After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open for min. 10 minutes with eye washing bottle, eye douche or running water (protect intact eye). Before (if possible) apply eye drops Proxymetacaine 0.5%, if the opening the eyelid convulsion is painful. Further treatment to be carried out by an eye specialist.

#### 4.1.3 After INHALATION of vapours

After inhalation of foam or vapour fresh air should be inhaled. Keep airways free. ---

#### 4.1.4 After ORAL Intake

After oral intake lots of water should be drunk after it has been ingested. ---

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

---

### 4.3 Indication of any immediate medical attention and special treatment needed

After EYE CONTACT rinse immediately with plenty of water for a long time. Eyelid convulsion measures. Name the corrosive chemical. Further treatment must to be carried out by an eye specialist. ---

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

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

WARNING: Flammable (GHS regulation). May form explosive vapour-air mixtures. Formation of hazardous and caustic vapour-air mixtures possible. ---

### 5.3 Advice for firefighters

No, for listed product. The substance/mixture is flammable. Product package burns like paper or plastic. Cool any undamaged containers in water, and remove from the danger zone if possible. Heating will lead to an increase in pressure, and a danger of bursting.

### 5.4 Additional information

---

## SECTION 6: Accidental release measures

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

Do not breathe vapours. Wear eye protection. Keep product away from sources of ignition - No smoking. Regular staff training is necessary.

### 6.2 Environmental precautions

not necessary

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

Bind any escaping liquid with inert absorbent.  
Collect small amounts of leaked liquid and flush with water into drains.

### 6.4 Reference to other sections

---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product.

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 740393.3000  
Printing date: 12.05.2021

Buffer ELU-EF (3000 mL)  
Date of issue: 20.05.2019

Page: 4/7

## 7.2 Conditions for safe storage, including any incompatibilities

The original product package of MACHEREY-NAGEL allows a safe storage.

Storage class (VCI): 3  
Water hazard class (DE): 1

### 7.2.1 Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage.

## 7.3 Specific end use(s)

Product for analytical use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### 3000 mL ELU-EF

Chemical: 2-propanol

CAS No.: 67-63-0

DNEL: [inh] 500 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: 140.9 mg/L  
PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 200 ppm / 500 mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: 2 (II), Y  
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 200 ppm / 500 mg/m<sup>3</sup>

TRGS 903 (DE): [Aceton B/b, U/b] 25 mg/L  
B blood, U urine, a no limitation, b end of exposition or shift

NIOSH: [TWA] 400 ppm / 980 mg/m<sup>3</sup>

NIOSH STEL: 500 ppm / 1225 mg/m<sup>3</sup>  
[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: [TWA] 400 ppm / 980 mg/m<sup>3</sup>

Chemical: potassium chloride

CAS No.: 7447-40-7

Chemical: chemicals/mixture < 1%

CAS No.: -

### 8.2 Exposure controls

Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. The highest level of cleanliness must be maintained at the workplace.

#### 8.2.1 Respiratory protection

No additional recommendations.

#### 8.2.2 Hand protection

Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC (f.ex. from Ansell or KCL).

#### 8.2.3 Eye protection

Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

#### 8.2.4 Skin protection

Recommended.

#### 8.2.5 Personal hygiene

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 3000 mL ELU-EF

Appearance: liquid

Colour: colourless

Odor: alcoholic

pH:

8.5-9.5

Flash point:

30 °C

Specific gravity:

1.04 g/cm<sup>3</sup>

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 740393.3000

Buffer ELU-EF (3000 mL)

Page: 5/7

Printing date: 12.05.2021

Date of issue: 20.05.2019

## 9.2 Other information

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

### Relevant Properties of Substance Group

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no further data available.

### 10.2 Chemical stability

No known instability.

### 10.3 Possibility of hazardous reactions

But avoid reactions with oxidizing agents. No further data available.

### 10.4 Conditions to avoid

Not necessary. But can form explosive gases/vapour with air. Use only in a well-ventilated working areas. ---

### 10.5 Incompatible materials

Avoid contact with strong acids or alkalines. Avoid storage with oxidising substances.

### 10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 3000 mL ELU-EF

Chemical:	<i>2-propanol</i>	CAS No.:	67-63-0
TSCA Inventory:	listed	California Proposition 65 List:	not listed
ACGIH:	1230 ppm		
Exposure Routes:	inhalation, ingestion, skin and/or eye contact		
Target Organs:	Eyes, skin, respiratory system		
Symptoms:	irritation eyes, nose, throat; drowsiness, dizziness, headache; dry cracking skin; in animals: narcosis		
Australia NICNAS:		Canada CEPA 1999:	DSL yes
Japan CSCL/PRTR:	PAC yes, Japan PDSCL: -		
Japan ISHL:	listed $\geq 1,0\%$ / $\geq 0,1\%$ , Article 57-2 (SDS required)		
South Korea TCCA:			
Korea Exist.Chem.Inventory:	KE-29363		
LD50 <sub>orl rat</sub> :	5045 mg/kg		
LC <sub>LoWorl hmn</sub> :	3570 mg/kg		
LC50 <sub>ihl rat</sub> :	16 <sub>4h</sub> g/m <sup>3</sup>		
LD50 <sub>drm rbt</sub> :	12.8 g/kg		
TRGS 905 (DE):	R <sub>F</sub> C		

Chemical:	<i>potassium chloride</i>	CAS No.:	7447-40-7
TSCA Inventory:	listed		
Korea Exist.Chem.Inventory:	KE-29086		
LD50 <sub>orl rat</sub> :	2600 mg/kg		

Chemical:	<i>chemicals/mixture &lt; 1%</i>	CAS No.:	-
TSCA Inventory:	all listed, <1%		
Korea Exist.Chem.Inventory:	listed		

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 740393.3000

Buffer ELU-EF (3000 mL)

Page: 6/7

Printing date: 12.05.2021

Date of issue: 20.05.2019

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 3000 mL ELU-EF

Chemical:	<i>2-propanol</i>	CAS No.:	67-63-0
PNEC(fresh water) :	140.9 mg/L		
PNEC = Predicted No Effect Concentration			
LC50 <sub>fish/96h</sub> :	1400 mg/L		
EC50 <sub>daphnia/48h</sub> :	13.3 g/L		
IC50 <sub>scenedesmus quadricauda/72h</sub> :	>1000 mg/L		
EC10 <sub>pseudomonas putida/16h</sub> :	EC5: 1050 mg/L		
Water hazard class (DE):	1	WGK No.:	0135
Dispersion coefficient(octanol-water) :	0.05		
Storage class (VCI):	3		
Chemical:	<i>potassium chloride</i>	CAS No.:	7447-40-7
Water hazard class (DE):	1		
Storage class (VCI):	12-13		
Chemical:	<i>chemicals/mixture &lt; 1%</i>	CAS No.:	-
Water hazard class (DE):	1		
Storage class (VCI):	12-13		

### 12.2 Persistence and degradability

not necessary

### 12.3 Bioaccumulative potential

not necessary

### 12.4 Mobility in soil

not necessary

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no additional data available

## SECTION 13: Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06).

### 13.1 Waste treatment methods

Normally it is possible to empty small amounts (diluted!) into drains.

## SECTION 14: Transport information

<b>14.1 UN number:</b>	<b>1993</b>	<b>14.2 UN proper shipping name:</b>	<b>Flammable liquid, n.o.s. (2-propanol mixture)</b>
<b>14.3 Class:</b>	<b>3</b>	<b>14.4 Packing group:</b>	<b>III</b>
<i>Road transport</i>			
Classification code:	F1	Tunnel restriction code:	E
Limited Quantity:	5 L	Special instructions:	640E
Excepted Quantity:	E 1		
<i>Air transport</i>			
PAX:	355	max. weight PAX:	60 L
CAO:	366	max. weight CAO:	220 L
<i>Maritime transport</i>			
EmS:	F-E, S-E	Storage category:	A

### 14.5 Environmental hazards

none, contains only small quantities of hazardous substances

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 740393.3000

Buffer ELU-EF (3000 mL)

Page: 7/7

Printing date: 12.05.2021

Date of issue: 20.05.2019

## 14.6 Special precautions for user

not necessary

## 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

## SECTION 15: Regulatory information

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

German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on August 2013  
 German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on November 2010, according to Directive 98/24/EC  
 TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011  
 MN Leaflet/User manual, also see www.mn-net.com  
 Look for your country-specific regulations.

### 15.2 Chemical safety assessment

not necessary for these small amounts ---

## SECTION 16: Other information

### 16.1 List of H and P phrases

#### 16.1.1 List of relevant H phrases

H226 Flammable liquid and vapour.  
 H319 Causes serious eye irritation.

#### 16.1.2 List of relevant P phrases

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
 P280sh Wear protective gloves/eye protection.

### 16.2 Training advice

Multiple safety training of staffs about danger and protection by using hazards in working area.

### 16.3 Recommended restriction on use

Only for professional user.  
 An individual package of this product or test kit has a moderate hazardous potential.

### 16.4 Further information

MACHEREY-NAGEL GmbH & Co. KG provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.  
 MACHEREY-NAGEL GmbH & Co. KG makes NO REPRESENTATIONS or WARRANTIES, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly MACHEREY-NAGEL GmbH & Co. KG will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

### 16.5 Sources of key data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS  
 Regulation 487/2013/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress  
 Regulation 669/2018/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress  
 Regulation 1480/2018/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress  
 TRGS 900, German engineering rules governing limits in air at work, updated 03/2019  
 SUVA .CH, Limits in air at work 2009, revised on 01.2009  
 Directive 1999/92/EC Minimum requirements for improving the safety and health protection of workers at risk from potentially explosive atmospheres  
 KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

#### Revisions/Updates

Reason for Revision: 2016-03 Adaptation of regulation 1221/2015/EU