03.05.2018	Kit Components
Product code	Description
39226	SingleQuant Assay Kit
Components:	
400530	Elution solution
400529	Wash solution

Version number 3

Printing date 03.05.2018

*

*

Revision: 03.05.2018

	lentifier CEDI 7A
	Elution solution
· Article numb	
	dentified uses of the substance or mixture and uses advised against
	evant information available.
	f the substance / the mixture Laboratory chemicals
· 1.3 Details of	the supplier of the safety data sheet
· Manufacture	
SERVA Electr	ophoresis GmbH
Carl-Benz-Str	
D-69115 Heid	
<i>Tel.:</i> +49 622	
FAX: +49 622	
msds.info@se	rva.ae
	lepartment: Product Safety department Tel.: +49 6221 13840-35
	y telephone number:
	gency Information in case of poisoning:
•	ation Center Mainz - Phone: +49 (0) 6131 19240
(advisory serv	ice in German or English language)
	\sim
SECTION 2	: Hazards identification
	tion of the substance or mixture according to Regulation (EC) No 1272/2008 S05
Classification	according to Regulation (EC) No 1272/2008
Classification	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage.
Classification	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.
Classification GH Skin Corr. 1A Eye Dam. 1 • 2.2 Label eler	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. nents
Classification GH Skin Corr. 1A Eye Dam. 1 • 2.2 Label eler • Labelling acc	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. nents ording to Regulation (EC) No 1272/2008
Classification GH Skin Corr. 1A Eye Dam. 1 • 2.2 Label eler • Labelling acc	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. nents ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation.
Classification Classification GH Skin Corr. 1A Eye Dam. 1 C.2 Label eler Labelling acc The product i.	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. nents ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05
Classification Classification GH Skin Corr. 1A Eye Dam. 1 2.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. nents ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05 Danger
Classification Classification GH Skin Corr. 1A Eye Dam. 1 2.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. ments ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05 Danger nining components of labelling:
Classification Classification GH Skin Corr. 1A Eye Dam. 1 2.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1 Hazard-detern sodium hydro.	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. nents ording to Regulation (EC) No 1272/2008 i classified and labelled according to the CLP regulation. rams GHS05 Danger nining components of labelling: cide
Classification Classification GH Skin Corr. 1A Eye Dam. 1 2.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1 Hazard-detern sodium hydro. Hazard staten	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. nents ording to Regulation (EC) No 1272/2008 i classified and labelled according to the CLP regulation. rams GHS05 Danger nining components of labelling: cide
Classification Classification GH Skin Corr. 1A Eye Dam. 1 2.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1 Hazard-detern sodium hydro. Hazard staten H314 Causes Precautionar	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. nents ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05 Danger nining components of labelling: side nents severe skin burns and eye damage. statements
Classification Classification GH Skin Corr. 1A Eye Dam. 1 2.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1 Hazard-detern sodium hydro. Hazard staten H314 Causes Precautionar P260	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. ments ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05 Danger mining components of labelling: side ments severe skin burns and eye damage. statements bo not breathe dusts or mists.
Classification Classification GH Skin Corr. 1A Eye Dam. 1 2.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1 Hazard-detert sodium hydro. Hazard staten H314 Causes Precautionar P260 P264	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. ments ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05 Danger mining components of labelling: side ments severe skin burns and eye damage. statements bo not breathe dusts or mists. Wash thoroughly after handling.
Classification Classification GH Skin Corr. 1A Eye Dam. 1 C.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1 Hazard-detern sodium hydro. Hazard staten H314 Causes Precautionar P260 P264 P280	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. ments ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05 Danger mining components of labelling: cide ments severe skin burns and eye damage. statements bo not breathe dusts or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Classification Classification GH Skin Corr. 1A Eye Dam. 1 C.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1 Hazard-detern sodium hydro. Hazard staten H314 Causes Precautionar P260 P264 P280	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. ments ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05 Danger nining components of labelling: cide nents severe skin burns and eye damage. p statements Do not breathe dusts or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin w
Classification Classification GH Skin Corr. 1A Eye Dam. 1 2.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1 Hazard-detern sodium hydro. Hazard staten H314 Causes Precautionar P260 P264 P280 P303+P361+	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. ments ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05 Danger nining components of labelling: cide ments severe skin burns and eye damage. statements Do not breathe dusts or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin w water/shower.
Classification Classification Skin Corr. 1A Eye Dam. 1 2.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1 Hazard-detern sodium hydro. Hazard staten H314 Causes Precautionar P260 P264 P280 P303+P361+ P304+P340	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. ments ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05 Danger nining components of labelling: cide ments severe skin burns and eye damage. statements Do not breathe dusts or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin w water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Classification Classification GH Skin Corr. 1A Eye Dam. 1 2.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1 Hazard-detern sodium hydro. Hazard staten H314 Causes Precautionar P260 P264 P280 P303+P361+ P304+P340	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. ments ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05 Danger nining components of labelling: cide nents severe skin burns and eye damage. p statements Do not breathe dusts or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin w water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses
Classification Classification Skin Corr. 1A Eye Dam. 1 C.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1 Hazard-detern sodium hydro. Hazard staten H314 Causes Precautionar P260 P264 P280 P303+P361+ P304+P340 P305+P351+	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. ments ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05 Danger mining components of labelling: cide ments severe skin burns and eye damage. pstatements Do not breathe dusts or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin w water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses present and easy to do. Continue rinsing.
Classification Skin Corr. 1A Eye Dam. 1 2.2 Label eler Labelling acc The product i. Hazard pictog Signal word 1 Hazard-deter sodium hydro. Hazard staten H314 Causes Precautionar P260 P264 P280 P303+P361+ P304+P340 P305+P351+ 2.3 Other haz	according to Regulation (EC) No 1272/2008 S05 H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. ments ording to Regulation (EC) No 1272/2008 classified and labelled according to the CLP regulation. rams GHS05 Danger mining components of labelling: cide ments severe skin burns and eye damage. pstatements Do not breathe dusts or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin w water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses present and easy to do. Continue rinsing.

Version number 3

Revision: 03.05.2018

Trade name: Elution solution

Printing date 03.05.2018

• **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

- · Description: Mixture of the substances listed below with harmless additions.
- · Dangerous components:

CAS: 1310-73-2 sodium hydroxide EINECS: 215-185-5

· 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 Remove contaminated clothing.
- After inhalation Supply fresh air and to be sure call for a doctor.
- After skin contact Immediately wash with water and soap and rinse thoroughly.
- After eye contact Rinse opened eye for several minutes under running water. Then consult doctor.
- · After swallowing Drink copious amounts of water and provide fresh air. Call for 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.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- Suitable extinguishing agents Use fire fighting measures that suit the environment.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · 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). Use neutralising agent.

Dispose contaminated material as waste according to item 13.

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.

• Information about protection against explosions and fires: No special measures required.

(Contd. on page 3)

(Contd. of page 1)

2.5-7%

Skin Corr. 1A, H314

Printing date 03.05.2018

Version number 3

Revision: 03.05.2018

(Contd. of page 2)

Trade name: Elution solution

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- · 8.1 Control parameters
- · Components 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 that were valid during the creation were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment
- General protective and hygienic measures Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
- **Breathing equipment:** Short term filter device: Filter P2.
- · Protection of hands:
- Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

• Material of gloves

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.
- \cdot For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Natural rubber, NR Chloroprene rubber, CR Nitrile rubber, NBR

• Eye protection: Tightly sealed goggles.

• Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- General Information
- · Appearance: Form:

Fluid

(Contd. on page 4)

GB

Printing date 03.05.2018

Version number 3

Revision: 03.05.2018

Trade name: Elution solution

	(Contd. of	page
Colour:	Colourless	
· Odour:	Odourless	
· pH-value at 20 •C:	13.5	
· Change in condition		
Melting point/freezing point:	undetermined	
Initial boiling point and boiling ra	nge: > 100 °C	
· Flash point:	Not applicable	
· Self igniting:	Product is not selfigniting.	
· Explosive properties:	Product does not present an explosion hazard.	
· Density:	Not determined	
· Solubility in / Miscibility with		
Water:	Fully miscible	
· Solvent content:		
Organic solvents:	0.0~%	
· VOC %:	0.00 %	
· Solids content:	4.0 %	
\cdot 9.2 Other information	There are no more data available.	

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
- \cdot **10.4 Conditions to avoid** No further relevant information available.
- \cdot 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 toxicological effects

- Acute toxicity Based on available data, the classification criteria are not met.
- · LD/LC50 values that are relevant for classification:

1310-73-2 sodium hydroxide

Oral LD50 2000 mg/kg (rat)

· Primary irritant effect:

· Skin corrosion/irritation

- Causes severe skin burns and eye damage.
- \cdot Serious eye damage/irritation
- Causes serious eye damage.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · 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 5)

GB

Printing date 03.05.2018

Version number 3

Revision: 03.05.2018

Trade name: Elution solution

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

(Contd. of page 4)

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.
- 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.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

- · 12.5 Results of PBT and vPvB assessment
- · PBT: PBT assessment not available.
- · **vPvB**: vPvB assessment not available.

· 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

14.1 UN-Number ADR, IMDG, IATA	UN1824
14.2 UN proper shipping name	
ADR	1824 SODIUM HYDROXIDE SOLUTION
IMDG	SODIUM HYDROXIDE SOLUTION
IATA	Sodium hydroxide solution
14.3 Transport hazard class(es)	
J. J.	
Class	8 Corrosive substances.
	8 Corrosive substances. 8
Label	
Label 14.4 Packing group	
Class Label 14.4 Packing group ADR, IMDG, IATA 14.5 Environmental hazards:	8
Label 14.4 Packing group ADR, IMDG, IATA	8

(Contd. of page 5)

• Transport/Additional information: • ADR

ADR
Limited quantities (LQ)
Transport category
Tunnel restriction code
UN "Model Regulation":
UN1824, SODIUM HYDROXIDE SOLUTION, 8, II

SECTION 15: Regulatory information

• 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture • REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

· National regulations

• Water hazard 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.

· Relevant phrases

H314 Causes severe skin burns and eye damage.

- · Department issuing SDS: Product safety department
- · Contact: +49 6221 13840-35

· 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) ICAO: International Civil Aviation Organisation PBT: persistent, bioaccumulative, toxic substance (REACH) vPvB: very persistent, very bioaccumulative substance (REACH) REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals CLP: Regulation on classification, labelling and packaging of substances and mixtures ADR: Accord européen sur le transport 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 Skin Corr. 1A: Skin corrosion/irritation - Category 1A Eye Dam. 1: Serious eye damage/eye irritation - Category 1 * Data compared to the previous version altered.

Version number 3

Printing date 03.05.2018

*

*

Revision: 03.05.2018

	Identification of the substance/mixture and of the company/undertaking	
· 1.1 Product ide	ntifier CCDV//	
· Trade name: W	ash solution	S
No further relev	: 400529 entified uses of the substance or mixture and uses advised against pant information available. the substance / the mixture Laboratory chemicals	
• 1.3 Details of th • Manufacturer/S SERVA Electrop Carl-Benz-Str. 7 D-69115 Heide Tel.: +49 6221 FAX: +49 6221 msds.info@serv	phoresis GmbH 7 Iberg 13840-0 13840-10	
• 1.4 Emergency Medical Emerge Poison Informa	partment: Product Safety department Tel.: +49 6221 13840-35 telephone number: ency Information in case of poisoning: tion Center Mainz - Phone: +49 (0) 6131 19240 e in German or English language)	
SECTION 2:	Hazards identification	
🖌 💔 🔪 GHS(\mathbf{D}^{2}	
Flam. Liq. 2 H.	225 Highly flammable liquid and vapour.	
Flam. Liq. 2 H	225 Highly flammable liquid and vapour.	
Flam. Liq. 2 H.	225 Highly flammable liquid and vapour.	
Flam. Liq. 2 H.	225 Highly flammable liquid and vapour. 07	
Flam. Liq. 2 H. Flam. Liq. 2 H. GHSO Skin Irrit. 2 H. Eye Irrit. 2 H.	225 Highly flammable liquid and vapour. 27 315 Causes skin irritation. 319 Causes serious eye irritation.	
Flam. Liq. 2 H. Flam. Liq. 2 H. GHSO Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme	225 Highly flammable liquid and vapour. 27 315 Causes skin irritation. 319 Causes serious eye irritation.	
Flam. Liq. 2 H. Flam. Liq. 2 H. GHSC Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accorr The product is c	 Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. 	
Flam. Liq. 2 H. Flam. Liq. 2 H. GHSC Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accor The product is c Hazard pictogra	 225 Highly flammable liquid and vapour. 27 315 Causes skin irritation. 319 Causes serious eye irritation. 2nts 2rding to Regulation (EC) No 1272/2008 2lassified and labelled according to the CLP regulation. 2mms GHS02, GHS07 	
Flam. Liq. 2 H. Flam. Liq. 2 H. GHSO Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accor The product is c Hazard pictogra Signal word Da	 Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. Causes serious eye irritation. Cause s	
Flam. Liq. 2 H. Flam. Liq. 2 H. GHSC Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accord The product is of Hazard pictogra Signal word Da Hazard stateme	 Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. Causes serious eye irritation. Causes serious eye irritation. Cause serious eye irritatirritation. <li< td=""><td></td></li<>	
Flam. Liq. 2 H. Flam. Liq. 2 H. GHSC Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accor The product is a Hazard pictogra Signal word Date Hazard stateme H225 Highly fla	 Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. Causes eye irritation. Cause eye irritatirritatirritation. Cause eye irrita	
Flam. Liq. 2 H. Flam. Liq. 2 H. Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accor The product is c Hazard pictogra Signal word Da Hazard stateme H225 Highly fla H315 Causes sk	 Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. Causes eye irritation. Cause eye irritation. <l< td=""><td></td></l<>	
Flam. Liq. 2 H. Flam. Liq. 2 H. Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accor The product is a Hazard pictogra Signal word Da Hazard stateme H225 Highly fla H315 Causes sk H319 Causes se	 Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. Causes GHS02, GHS07 Mager nts Manmable liquid and vapour. Causes irritation. Causes eye irritation. 	
Flam. Liq. 2 H. Flam. Liq. 2 H. Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accor The product is c Hazard pictogra Signal word Da Hazard stateme H225 Highly fla H315 Causes sk	 Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. Causes GHS02, GHS07 Mager nts Manmable liquid and vapour. Causes irritation. Causes eye irritation. 	
Flam. Liq. 2 H. Flam. Liq. 2 H. Flam. Liq. 2 H. GHSO Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accord The product is of Hazard pictogro Signal word Da Hazard stateme H225 Highly flat H315 Causes sk H319 Causes se Precautionary so P264 P280	 Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. Causes field and labelled according to the CLP regulation. Causes GHS02, GHS07 Inger Ins Ins	
Flam. Liq. 2 H. Flam. Liq. 2 H. Flam. Liq. 2 H. GHSO Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accord The product is of Hazard pictogro Signal word Da Hazard stateme H225 Highly flat H315 Causes sk H319 Causes se Precautionary so P264 P280	 Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. Causes field and labelled according to the CLP regulation. Causes GHS02, GHS07 Inger Ins Ins	 п w
Flam. Liq. 2 H. Flam. Liq. 2 H. Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accord The product is a Hazard pictogra Signal word Da Hazard stateme H225 Highly flat H315 Causes ske H319 Causes se Precautionary so P264 P280 P303+P361+P3	 Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. Causes ding to Regulation (EC) No 1272/2008 Classified and labelled according to the CLP regulation. Causes GHS02, GHS07 Inger Ins Inmable liquid and vapour. In irritation. rious eye irritation. rious eye irritation. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skii water/shower. 	
Flam. Liq. 2 H. Flam. Liq. 2 H. Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accord The product is a Hazard pictogra Signal word Da Hazard stateme H225 Highly flat H315 Causes ske H319 Causes se Precautionary so P264 P280 P303+P361+P3	 Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. Causes serious eye irritation. Causes serious eye irritation. Causes serious eye irritation. Causes ding to Regulation (EC) No 1272/2008 Classified and labelled according to the CLP regulation. Causes GHS02, GHS07 Inger nts Inmable liquid and vapour. In irritation. rious eye irritation. rious eye irritation. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skii water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact len 	
Flam. Liq. 2 H. Flam. Liq. 2 H. Skin Irrit. 2 H. Eye Irrit. 2 H. 2.2 Label eleme Labelling accord The product is a Hazard pictogra Signal word Da Hazard stateme H225 Highly flat H315 Causes ske H319 Causes se Precautionary so P264 P280 P303+P361+P3	 Highly flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation. Causes ding to Regulation (EC) No 1272/2008 Classified and labelled according to the CLP regulation. Causes GHS02, GHS07 Inger Ins Inmable liquid and vapour. In irritation. rious eye irritation. rious eye irritation. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skii water/shower. 	

Printing date 03.05.2018

Version number 3

Revision: 03.05.2018

(Contd. of page 1)

Trade name: Wash solution

P362+P364 Take off contaminated clothing and wash it before reuse.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

• Description: Mixture of the substances listed below with harmless additions.

· Dangerous components:

Dungerous compone	nus.		
CAS: 64-17-5	ethanol	🚸 Flam. Liq. 2, H225; 🚸 Eye Irrit. 2, H319	80-100%
EINECS: 200-578-6			
CAS: 64-19-7	acetic acid	🚸 Flam. Liq. 3, H226; 🔗 Skin Corr. 1A, H314	5-15%
EINECS: 200-580-7		· · · · · · · · ·	
A d didi a sa ml ina fa man mt	an Fouthowarding of th	a listed har and physics noter to section 16	

• 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 and to be sure call for a doctor.
- · After skin contact Immediately wash with water and soap and rinse thoroughly.
- · After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor. • *After swallowing Drink copious amounts of water and provide fresh air. Call for 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.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents
- *CO₂* extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.
- · For safety reasons unsuitable extinguishing agents Water with full jet.
- 5.2 Special hazards arising from the substance or mixture In case of fire, the following can be formed, but not limited to: Hydrogen chloride (HCl) Carbon monoxide (CO)
 5.3 Advice for firefighters
- Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.
 Keep away from ignition sources
 6.2 Environmental precautions:
- Prevent seepage into sewage system, workpits and cellars. 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). Ensure adequate ventilation.

(Contd. on page 3)

GB

Printing date 03.05.2018

Version number 3

Revision: 03.05.2018

(Contd. of page 2)

Trade name: Wash solution

· 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.

• Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage

• Requirements to be met by storerooms and receptacles: Store in a cool location.

· Information about storage in one common storage facility: Not required.

• Further information about storage conditions: Keep receptacle tightly sealed.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

• Additional information about design of technical systems: No further data; see item 7.

· 8.1 Control parameters

· Components with limit values that require monitoring at the workplace:

64-17-5 ethanol (80-100%)

WEL () Long-term value: 1920 mg/m³, 1000 ppm

• Additional information: The lists that were valid during the creation were used as basis.

- · 8.2 Exposure controls
- · Personal protective equipment
- General protective and hygienic measures Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin.
- **Breathing equipment:** Short term filter device: Filter A/P2.

• Protection of hands:

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

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.

(Contd. on page 4)

⁻ GB

Printing date 03.05.2018

Version number 3

· For the permanent contact of a maximum of 15 minutes gloves made of the following materials are

Revision: 03.05.2018

(Contd. of page 3)

Trade name: Wash solution

Chloroprene rubber, CR	
<i>Eye protection: Tightly sealed goggles.</i> <i>Body protection: Protective work clothing</i>	-
Body protection: Frotective work clothing	<u>.</u>
SECTION 9: Physical and chemical p	properties
9.1 Information on basic physical and ch	nomical properties
General Information	
Appearance:	
Form:	Fluid
Colour:	Colourless
· Odour:	Alcohol-like
pH-value at 20 °C:	4
Change in condition	
Melting point/freezing point:	undetermined
Initial boiling point and boiling range:	78 °C
Flash point:	12 °C
Ignition temperature:	425 °C
Self igniting:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive ai
	vapour mixtures are possible.
Explosion limits:	
Lower:	3.4 Vol %
Upper:	17.0 Vol %
Vapour pressure at 20 °C:	59 hPa
Density at 20 °C:	0.818 g/cm ³
Solubility in / Miscibility with	
Water:	Fully miscible
Solvent content:	
Organic solvents:	100.0 %
· VOC %:	100.00 %
· VOC g/l:	818.0 g/l
9.2 Other information	There are no more data available.

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

(Contd. on page 5)

GB

Printing date 03.05.2018

Version number 3

Revision: 03.05.2018

Trade name: Wash solution

(Contd. of page 4)

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.
- 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.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · 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.

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.
- · 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.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** PBT assessment not available.
- · **vPvB**: vPvB assessment not available.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

· 14.1 UN-Number	
· ADR, IMDG, IATA	UN2924
· 14.2 UN proper shipping name	
$\cdot ADR$	2924 FLAMMABLE LIQUID, CORROSIVE, N.O.
	(ETHANOL (ETHYL ALCOHOL), ACETIC AC
	SOLUTION)

Safety data sheet

Printing date 03.05.2018	Version number 3	Revision: 03.05.2018
Trade name: Wash solution		
		(Contd. of page 5
· IMDG · IATA	(ETHYL ALCOHOL), AC	CORROSIVE, N.O.S. (ETHANOL ETIC ACID SOLUTION) sive, n.o.s. (Ethanol, Acetic acid,
· 14.3 Transport hazard class(es)	solution)	
· ADR, IMDG, IATA		
· Class · Label	3 Flammable liquids. 3+8	
· 14.4 Packing group	510	
· ADR, IMDG, IATA	II	
· 14.5 Environmental hazards: · Marine pollutant:	No	
· 14.6 Special precautions for user	Warning: Flammable liqu	uids.
· Danger code (Kemler):	338	
· EMS Number:	F-E,S-C Acids	
· Segregation groups		
• 14.7 Transport in bulk according to A Marpol and the IBC Code	nnex II of Not applicable.	
· Transport/Additional information:		
· ADR		
\cdot Limited quantities (LQ)	1L	
• Transport category	2	
• Tunnel restriction code	D/E	
· UN "Model Regulation":	UN2924, FLAMMABLE (8), II	LIQUID, CORROSIVE, N.O.S., 3

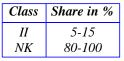
SECTION 15: Regulatory information

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

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

· National regulations

· Technical instructions (air):



• Water hazard 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.

· Relevant phrases

H225 Highly flammable liquid and vapour.

(Contd. on page 7)

GB

GB

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 03.05.2018

Version number 3

Revision: 03.05.2018

Trade name: Wash solution

	(Contd. of page 6)
H226 Flammable liquid and vapour.	
H314 Causes severe skin burns and eye damage.	
H319 Causes serious eye irritation.	
Department issuing SDS: Product safety department	
Contact: +49 6221 13840-35	
Abbreviations and acronyms:	
RID: Règlement international concernant le transport des marchandises dangereuses par chen	in de fer (Regulations Concerning the
International Transport of Dangerous Goods by Rail)	j (
ICAO: International Civil Aviation Organisation	
PBT: persistent, bioaccumulative, toxic substance (REACH)	
vPvB: very persistent, very bioaccumulative substance (REACH)	
REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Cha	emicals
CLP: Regulation on classification, labelling and packaging of substances and mixtures	
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European A	greement 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 Flam. Lig. 2: Flammable liquids – Category 2	
Flam. Liq. 2: Flammable liquids – Calegory 2 Flam. Liq. 3: Flammable liquids – Category 3	
Skin Corr. 1A: Skin corrosion/irritation – Category 1A	
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	
* Data compared to the previous version altered.	
Dura comparea to the provious version andrea.	