



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Elektrolyt 1524 1000 and 1524 2000

Revision date: 23.05.2023

Product code: 1524x000

Page 1 of 7

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Elektrolyt 1524 1000 and 1524 2000

Further trade names1524 1000 Elektrolyt 2 l
1524 2000 Elektrolyt 10 l**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

For polishing chrome-cobalt alloys. Solution is ready for use.

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	Renfert GmbH
Street:	Untere Giesswiesen 2
Place:	D-78247 Hilzingen
Telephone:	+49 7731 8208-0
e-mail:	info@renfert.com
Contact person:	Frau Andris
e-mail:	silke.andris@renfert.com
Internet:	www.renfert.com

1.4. Emergency telephone number: IRL: 01 809 2566 (Healthcare Professionals) | GB: 0044 151 951 3317 (Health and Safety Executive (HSE) Chemicals)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**Acute Tox. 4; H302
Skin Irrit. 2; H315
Eye Irrit. 2; H319
STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

2.2. Label elements**Regulation (EC) No 1272/2008****Hazard components for labelling**

ethane-1,2-diol

Signal word:

Warning

Pictograms:**Hazard statements**

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H373	May cause damage to kidneys through prolonged or repeated exposure if swallowed.

Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P337+P313	If eye irritation persists: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.

2.3. Other hazards

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**

Electrolyte solution



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Elektrolyt 1524 1000 and 1524 2000

Revision date: 23.05.2023

Product code: 1524x000

Page 2 of 7

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
107-21-1	ethane-1,2-diol			> 80%
	203-473-3		01-2119456816-28	
	Acute Tox. 4, STOT RE 2; H302 H373			
7664-93-9	Sulphuric acid			< 15 %
	231-639-5	016-020-00-8	01-2119458838-20	
	Skin Corr. 1A, Eye Dam. 1; H314 H318			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity	
	Specific Conc. Limits, M-factors and ATE			
107-21-1	203-473-3	ethane-1,2-diol	> 80% %	
	oral: LD50 = 7712 mg/kg			
7664-93-9	231-639-5	Sulphuric acid	< 15 % %	
	Skin Corr. 1A; H314: >= 15 - 100 Skin Irrit. 2; H315: >= 5 - < 15 Eye Irrit. 2; H319: >= 5 - < 15			

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off contaminated clothing and wash it before reuse.

Symptoms of poisoning may develop several hours following exposure. Victim should be under medical observation for at least 48 hours after exposure.

After inhalation

Provide fresh air.

In case of respiratory tract irritation, consult a physician.

After contact with skin

IF ON SKIN: Wash with plenty of soap and water.

In case of skin irritation, consult a physician.

After contact with eyes

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

If eye irritation persists: Get medical advice/attention.

After ingestion

Rinse mouth immediately and drink 1 glass of water. Do NOT induce vomiting. Call a physician immediately.

When in doubt or if symptoms are observed, get medical advice.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water, Dry extinguishing powder, Foam, Carbon dioxide (CO2)

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Sulphur oxides, Carbon monoxide

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Elektrolyt 1524 1000 and 1524 2000

Revision date: 23.05.2023

Product code: 1524x000

Page 3 of 7

General advice

Avoid contact with eyes and skin.
Use personal protection equipment.
Provide adequate ventilation.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Handle and open container with care.
Avoid contact with skin, eyes and clothes. Use personal protection equipment.
Do not eat, drink or smoke when using this product.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Avoid contact with skin, eyes and clothes.
Wash hands before breaks and after work.
Keep away from food, drink and animal feedingstuffs.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep/Store only in original container.
Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Alkali (lye)

Further information on storage conditions

Protect against: Humidity

7.3. Specific end use(s)

Please refer to our internet website for more information. www.renfert.com

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
107-21-1	(OLD) 1,2-Dihydroxyethane, particulate	-	10		TWA (8 h)	
7664-93-9	Sulphuric acid	-	0.05		TWA (8 h)	

8.2. Exposure controls



Appropriate engineering controls

Safe handling: see section 7

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.
Suitable material: Butyl caoutchouc (butyl rubber), NBR (Nitrile rubber), FKM (fluoro rubber)



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Elektrolyt 1524 1000 and 1524 2000

Revision date: 23.05.2023

Product code: 1524x000

Page 4 of 7

Thickness of the glove material: mind. 0,5 mm

Breakthrough time: > 480 min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Skin protection

Wear suitable protective clothing.

Respiratory protection

Use only in well-ventilated areas.

Usually no personal respiratory protection necessary.

Respiratory protection necessary at: aerosol or mist formation

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	colourless
Odour:	odourless
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	197 °C
Flammability:	not applicable
Lower explosion limits:	3,2 vol. %
Upper explosion limits:	15,3 vol. %
Flash point:	> 100 °C
Auto-ignition temperature:	410 °C
Decomposition temperature:	not determined
pH-Value (at 20 °C):	1
Viscosity / kinematic:	not determined
Water solubility:	miscible
Partition coefficient n-octanol/water:	not determined
Vapour pressure: (at 20 °C)	< 1 hPa
Density (at 20 °C):	1,19 - 1,22 g/cm ³

9.2. Other information**Information with regard to physical hazard classes**

Explosive properties

not explosive according to EU A.14

Further Information

No further relevant information available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Violent reaction with: Alkali (lye)

Reactions with metals, with evolution of hydrogen.

10.4. Conditions to avoid

No special measures are necessary.

10.5. Incompatible materials

Violent reaction with: Alkali (lye)

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Elektrolyt 1524 1000 and 1524 2000

Revision date: 23.05.2023

Product code: 1524x000

Page 5 of 7

Acute toxicity

Harmful if swallowed.

ATEmix calculated

ATE (oral) 579,4 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
107-21-1	ethane-1,2-diol				
	oral	LD50 mg/kg	7712	Rat	IUCLID

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

May cause damage to organs through prolonged or repeated exposure. (ethane-1,2-diol)

Aspiration hazard

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

11.2. Information on other hazards**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Further information

The product has not been tested. The statement is derived from the properties of the single components.

SECTION 12: Ecological information**12.1. Toxicity**

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

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
107-21-1	ethane-1,2-diol	-1,36

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

The product has not been tested. The statement is derived from the properties of the single components. Do not allow uncontrolled discharge of product into the environment.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Dispose of waste according to applicable legislation.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Elektrolyt 1524 1000 and 1524 2000

Revision date: 23.05.2023

Product code: 1524x000

Page 6 of 7

List of Wastes Code - residues/unused products

060101 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of acids; sulphuric acid and sulphurous acid; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number or ID number: UN 2796
14.2. UN proper shipping name: SULPHURIC ACID with not more than 51 % acid
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8

**Marine transport (IMDG)**

14.1. UN number or ID number: UN 2796
14.2. UN proper shipping name: SULPHURIC ACID with not more than 51 % acid
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8



Marine pollutant: no

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 2796
14.2. UN proper shipping name: SULPHURIC ACID with not more than 51 % acid
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Further information: see section 6, 7, 8

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75
2004/42/EC (VOC): not applicable**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

Water hazard class (D): 1 - slightly hazardous to water



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Elektrolyt 1524 1000 and 1524 2000

Revision date: 23.05.2023

Product code: 1524x000

Page 7 of 7

Additional information

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not applicable
REGULATION (EU) 2019/1021 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on persistent organic pollutants: not applicable
Regulation (EU) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals: not applicable

SECTION 16: Other information

Changes

Abs. 2, 7, 9, 11, 16 * Data changed compared with the previous version.

Abbreviations and acronyms

PBT: persistent and bioaccumulative and toxic
vPvB: very persistent, very bioaccumulative
CAS: Chemical Abstracts Service (division of the American Chemical Society)
ATE: Acute Toxicity Estimate
LD50: lethal dose, 50%
LC50: lethal concentration, 50%
ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement concernant le transport international ferroviaire de marchandises Dangereuses (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
VOC: volatile organic compound(s)

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
STOT RE 2; H373	Calculation method

Relevant H and EUH statements (number and full text)

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H373 May cause damage to kidneys through prolonged or repeated exposure if swallowed.
H373 May cause damage to organs through prolonged or repeated exposure.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Restricted to professional users.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)