

according to Regulation (EC) No 1907/2006

## Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

Revision date: 06.03.2025 Product code: 32657 Page 1 of 12

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

## 1.1. Product identifier

Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

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

#### Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

### Uses advised against

Do not use for private purposes (household).

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

Company name: AnalytiChem GmbH

ACD

Street: Stempelstraße 6
Place: D-47167 Duisburg

Telephone: 0203/5194-0 Telefax: 0203/5194-290

E-mail: info@analytichem.de

Contact person: Abteilung Produktsicherheit Telephone: 0203/5194-107/117

E-mail: produktsicherheit@analytichem.de

Internet: www.analytichem.de

Responsible Department: Abteilung Produktsicherheit

**1.4. Emergency telephone** For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,

<u>number:</u> Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada:

1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls

accepted)

#### **Further Information**

This product is a mixture. REACH Registration Number see section 3.

## **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

## Regulation (EC) No 1272/2008

Met. Corr. 1; H290 Skin Corr. 1B; H314 Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

## 2.2. Label elements

#### Regulation (EC) No 1272/2008

## Hazard components for labelling

Hydrochloric acid nitric acid

Signal word: Danger

Pictograms:



#### **Hazard statements**

H290 May be corrosive to metals.



according to Regulation (EC) No 1907/2006

## Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

Revision date: 06.03.2025 Product code: 32657 Page 2 of 12

H314 Causes severe skin burns and eye damage.

**Precautionary statements** 

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water or shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

Special labelling of certain mixtures

EUH071 Corrosive to the respiratory tract.

2.3. Other hazards

No data available

### **SECTION 3: Composition/information on ingredients**

## 3.2. Mixtures

### **Chemical characterization**

Mixtures in aqueous solution

### Relevant ingredients

CAS No	Chemical name					
	EC No	Index No	REACH No			
	Classification (Regulation (EC) No 1272/2008)					
7647-01-0	Hydrochloric acid					
	231-595-7	017-002-01-X	01-2119484862-27			
	Met. Corr. 1, Skin Corr. 1B, Eye Dam. 1, STOT SE 3; H290 H314 H318 H335					
7697-37-2	nitric acid					
	231-714-2	007-030-00-3	01-2119487297-23			
	Ox. Liq. 3, Met. Corr. 1, Acute Tox. 3, Skin Corr. 1A, Eye Dam. 1; H272 H290 H331 H314 H318 EUH071					

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. L	imits, M-factors and ATE	
7647-01-0	231-595-7	Hydrochloric acid	5 - < 10 %
		1314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 3; H335: >= 10 - 100	
7697-37-2	231-714-2	nitric acid	1 - < 5 %
	I	2,65 mg/l (vapours) Ox. Liq. 3; H272: >= 65 - 100 Skin Corr. 1A; H314: >= 20 rr. 1B; H314: >= 5 - < 20	

#### **Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

### **General information**

First aider: Pay attention to self-protection!

Print date: 07.03.2025



## **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

## Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

Revision date: 06.03.2025 Product code: 32657 Page 3 of 12

#### After inhalation

Provide fresh air.

Call a physician immediately.

#### After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

## After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

## After ingestion

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting. Do not allow a neutralisation agent to be drunk.

Call a physician immediately.

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

Causes burns.

Irritant

Cough

Dyspnoea

Vomitina

Methaemoglobinaemia

Risk of serious damage to eyes.

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

No data available

## **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

### Unsuitable extinguishing media

no restriction

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

Non-combustible liquids

Hazardous combustion products

In case of fire may be liberated:

Nitrogen oxides (NOx)

Hydrogen chloride (HCI)

## 5.3. Advice for firefighters

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

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

## Additional information

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

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

## **SECTION 6: Accidental release measures**

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

Print date: 07.03.2025



## **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

## Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

Revision date: 06.03.2025 Product code: 32657 Page 4 of 12

#### General advice

Corrosive to metals.

## For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

**Emergency procedures** 

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

#### For emergency responders

Precautionary statements For emergency responders: Personal protection equipment: see section 8

## 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

#### For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

### Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

## 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

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Use personal protection equipment.

Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

Do not breathe vapour/aerosol. Use extractor hood (laboratory).

### Advice on protection against fire and explosion

Usual measures for fire prevention.

### Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

#### Further information on handling

Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary.

Take off immediately all contaminated clothing and wash it before reuse.

## 7.2. Conditions for safe storage, including any incompatibilities



according to Regulation (EC) No 1907/2006

## Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

Revision date: 06.03.2025 Product code: 32657 Page 5 of 12

## Requirements for storage rooms and vessels

Corrosive to metals.

Unsuitable container/equipment material: Metal

The product develops hydrogen in an aqueous solution in contact with metals.

#### Hints on joint storage

national regulations

## Further information on storage conditions

Keep container tightly closed.

## 7.3. Specific end use(s)

Laboratory chemicals

## **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

### Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
7647-01-0	Hydrogen chloride	5	8		TWA (8 h)	
		10	15		STEL (15 min)	
7697-37-2	Nitric acid	1	2.6		STEL (15 min)	

#### **DNEL/DMEL values**

CAS No	Substance				
DNEL type		Exposure route	Effect	Value	
7647-01-0	Hydrochloric acid				
Worker DNEL, long-term		inhalation	local	8 mg/m³	
Worker DNEL, acute		inhalation	local	15 mg/m³	
Consumer DNEL, long-term		inhalation	local	8 mg/m³	
Consumer DNEL, acute		inhalation	local	15 mg/m³	

## 8.2. Exposure controls

## Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

## Individual protection measures, such as personal protective equipment

## Eye/face protection

goggles

Wear eye/face protection.

## **Hand protection**

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Recommended glove articles: KCL 741 Dermatril® L Recommended material: NBR (Nitrile rubber) 0,11mm Wearing time with permanent contact: >480min

By short-term hand contact

Recommended glove articles: KCL 741 Dermatril® L



according to Regulation (EC) No 1907/2006

## Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

Revision date: 06.03.2025 Product code: 32657 Page 6 of 12

Recommended material: NBR (Nitrile rubber) 0,11mm Wearing time with occasional contact (splashes): >480min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

### Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

#### Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

#### **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: clear
Odour: stinging

Melting point/freezing point:

Boiling point or initial boiling point and

No data available

No data available

boiling range:

Flammability: No data available No data available Lower explosion limits: No data available Upper explosion limits: No data available Flash point: No data available Auto-ignition temperature: Decomposition temperature: No data available acidic pH-Value: Viscosity / kinematic: No data available Water solubility: completely miscible

Solubility in other solvents

No data available

Partition coefficient n-octanol/water:

Vapour pressure:

Vapour pressure:

No data available

Partition coefficient n-octanol/water:

No data available

No data available

Relative vapour density:

No data available

## 9.2. Other information

## Information with regard to physical hazard classes

Explosive properties

No data available

Sustaining combustion: No data available

Self-ignition temperature

Solid: No data available



according to Regulation (EC) No 1907/2006

## Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

Revision date: 06.03.2025 Product code: 32657 Page 7 of 12

Gas: No data available

Oxidizing properties

Oxidizing

Other safety characteristics

Evaporation rate:

Solvent separation test:

No data available
Solvent content:

No data available
Solid content:

No data available
Sublimation point:

No data available
Softening point:

No data available
Pour point:

No data available

No data available:

Viscosity / dynamic: No data available Flow time: No data available

**Further Information** 

Corrosive to metals.

## **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

Corrosive to metals.

Oxidising agent

## 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

## 10.3. Possibility of hazardous reactions

Alkali (lye)

The product develops hydrogen in an aqueous solution in contact with metals.

Amines, Ammonia, Alcohols, Alkali metals, Hydrogen peroxide

Copper, Combustible solids, Solvent, Alkaline earth metal, mercury (Hg).

## 10.4. Conditions to avoid

No data available

## 10.5. Incompatible materials

Cellulose

Metal

The product develops hydrogen in an aqueous solution in contact with metals.

## 10.6. Hazardous decomposition products

In case of fire may be liberated:

SECTION 5: Firefighting measures

## **Further information**

No data available

## **SECTION 11: Toxicological information**

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

### Toxicocinetics, metabolism and distribution

There are no data available on the mixture itself.

## **Acute toxicity**

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

## **ATEmix** calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l



according to Regulation (EC) No 1907/2006

## Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

Revision date: 06.03.2025 Product code: 32657 Page 8 of 12

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
7697-37-2	nitric acid					
	inhalation vapour	ATE 2,65 mg/l				

#### Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

Corrosive to the respiratory tract.

#### Sensitising effects

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

### Carcinogenic/mutagenic/toxic effects 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.

### Specific effects in experiment on an animal

There are no data available on the mixture itself.

## Additional information on tests

There are no data available on the mixture itself.

## **Practical experience**

There are no data available on the mixture itself.

### 11.2. Information on other hazards

### Other information

There are no data available on the mixture itself.

#### **Further information**

There are no data available on the mixture itself.

## **SECTION 12: Ecological information**

## 12.1. Toxicity

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



according to Regulation (EC) No 1907/2006

## Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

Revision date: 06.03.2025 Product code: 32657 Page 9 of 12

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method
7647-01-0	Hydrochloric acid						
	Acute fish toxicity	LC50	862 mg/l	96 h	Leuciscus idus		
7697-37-2	nitric acid						
	Acute fish toxicity	LC50 mg/l	1559	96 h	Topeka shiner	Environmental Toxicology and Chemistry,	other: ASTM E729-26
	Fish toxicity	NOEC	268 mg/l		juvenile Topeka shiner and with juvenile Fathead m	Study report (2009)	Growth tests estimated the test chemical
	Algae toxicity	NOEC mg/l	> 419		several benthic diatoms; see results	Marine Biology 43:307-315 (1977)	Ten cultures of benthic diatoms were iso
	Acute bacteria toxicity	EC50 mg/l ( )	> 1000	3 h	Activated sludge	Study report (2008)	OECD Guideline 209

### 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.

### 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

Harmful effect due to pH shift.

Forms corrosive mixtures with water even if diluted.

### **Further information**

Do not allow to enter into surface water or drains.

Discharge into the environment must be avoided.

## **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

#### **Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not empty into drains.

### Contaminated packaging

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

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

## **SECTION 14: Transport information**

## Land transport (ADR/RID)

14.1. UN number or ID number: UN 3264



according to Regulation (EC) No 1907/2006

## Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

Revision date: 06.03.2025 Product code: 32657 Page 10 of 12

14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric acid,

nitric acid)

14.3. Transport hazard class(es): 8 Ш 14.4. Packing group: Hazard label: 8 Classification code: C1 **Special Provisions:** 274 Limited quantity: 1 L Excepted quantity: E2 Transport category: 2 Hazard No: 80 Tunnel restriction code: F

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 3264

14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric acid,

nitric acid)

14.3. Transport hazard class(es):814.4. Packing group:IIHazard label:8Classification code:C1Special Provisions:274Limited quantity:1 LExcepted quantity:E2

Marine transport (IMDG)

14.1. UN number or ID number: UN 3264

**14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric acid,

Nitric acid)

14.3. Transport hazard class(es):814.4. Packing group:IIHazard label:8Special Provisions:274Limited quantity:1 LExcepted quantity:E2EmS:F-A. S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 3264

14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydrochloric acid,

Nitric acid)

14.3. Transport hazard class(es):814.4. Packing group:IIHazard label:8Special Provisions:A3 A803Limited quantity Passenger:0.5 LPassenger LQ:Y840Excepted quantity:E2

IATA-packing instructions - Passenger:851IATA-max. quantity - Passenger:1 LIATA-packing instructions - Cargo:855IATA-max. quantity - Cargo:30 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

## **SECTION 15: Regulatory information**



according to Regulation (EC) No 1907/2006

## Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

Revision date: 06.03.2025 Product code: 32657 Page 11 of 12

### 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

Information according to Directive

Not subject to 2012/18/EU (SEVESO III)

2012/18/EU (SEVESO III):

Marketing and use of explosives precursors (Regulation (EU) 2019/1148):

Acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

## 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.

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

### **SECTION 16: Other information**

#### Changes

This data sheet contains changes from the previous version in section(s): 12.

### Abbreviations and acronyms

Ox. Liq: Oxidising liquid

Met. Corr: Substance or mixture corrosive to metals

Acute Tox: Acute toxicity Skin Corr: Skin corrosion Eye Dam: Eye damage

STOT SE: Specific target organ toxicity - single exposure

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

Transmission for mixtures and accordination method according to regulation (20) its 1212200 [C21]						
Classification	Classification procedure					
Met. Corr. 1; H290	On basis of test data					
Skin Corr. 1B; H314	Calculation method					
Eye Dam. 1; H318	Calculation method					

## Relevant H and EUH statements (number and full text)

H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H335 May cause respiratory irritation. EUH071 Corrosive to the respiratory tract.

## **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. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Provide appropriate information, instructions and training to users

Print date: 07.03.2025



## **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

## Multielement-Standardlösung 3 Elemente in verdünnter Salpetersäure/ Salzsäure

Revision date: 06.03.2025 Product code: 32657 Page 12 of 12

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