

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Multielement-Standard 7 Elemente in Salpetersäure ~ 0,5 mol/l

Revision date: 10.10.2024

Product code: 34917

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

##### 1.1. Product identifier

Multielement-Standard 7 Elemente in Salpetersäure ~ 0,5 mol/l

UFI: 5TP3-X3C8-X00V-01JW

##### 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 number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, 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 Irrit. 2; H315

Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

##### 2.2. Label elements

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

Signal word: Warning

Pictograms:



###### Hazard statements

H290 May be corrosive to metals.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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**Precautionary statements**

- P280 Wear protective gloves/protective clothing and eye protection/face protection.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P390 Absorb spillage to prevent material damage.

**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			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7697-37-2	nitric acid			1 - < 5 %
	231-714-2	007-030-00-3	01-2119487297-23	
	Ox. Liq. 3, Met. Corr. 1, Acute Tox. 3, Skin Corr. 1A; H272 H290 H331 H314 EUH071			
10124-37-5	calcium nitrate			1 - < 5 %
	233-332-1			
	Ox. Sol. 3, Eye Irrit. 2; H272 H319			

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		
7697-37-2	231-714-2	nitric acid	1 - < 5 %
	inhalation: ATE 2,65 mg/l (vapours) Ox. Liq. 3; H272: >= 65 - 100 Skin Corr. 1A; H314: >= 20 - 100 Skin Corr. 1B; H314: >= 5 - < 20		
10124-37-5	233-332-1	calcium nitrate	1 - < 5 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 300 - < 2000 mg/kg		

**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**

No data available

**After inhalation**

- Provide fresh air.
- Call a doctor if you feel unwell.

**After contact with skin**

- Wash immediately with: Water
- Take off immediately all contaminated clothing and wash it before reuse.
- In case of skin irritation, consult a physician.

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#### 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.

#### 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

Irritant

Methaemoglobinaemia

#### 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 (NO<sub>x</sub>)

### 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

#### General advice

Corrosive to metals.

Do not breathe vapour/aerosol.

#### 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

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#### **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).

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

Collect in closed and suitable containers for disposal.

##### **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.

#### **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**

#### **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.

#### **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**

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#### Occupational exposure limits

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
7697-37-2	Nitric acid	1	2.6		STEL (15 min)	

#### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
10124-37-5	calcium nitrate			
Consumer DNEL, acute		oral	systemic	10 mg/kg bw/day

#### PNEC values

CAS No	Substance	Value
10124-37-5	calcium nitrate	
Micro-organisms in sewage treatment plants (STP)		18 mg/l

#### 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](mailto: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) 0,11 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Recommended glove articles: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11mm

Wearing time with occasional contact (splashes): > 480 min

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](http://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

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The entrepreneur 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.

**Thermal hazards**

No data available

**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	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		No data available
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		0
Viscosity / kinematic:		No data available
Water solubility:		completely miscible
Solubility in other solvents		
No data available		
Dissolution rate:		No data available
Partition coefficient n-octanol/water:		No data available
Dispersion stability:		No data available
Vapour pressure:		No data available
Vapour pressure:		No data available
Density:		1,0143 g/cm <sup>3</sup>
Relative density:		No data available
Bulk density:		No data available
Relative vapour density:		No data available
Particle characteristics:		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
Gas:	No data available
Oxidizing properties	
No data available	

**Other safety characteristics**

Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	0
Solid content:	0

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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.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Alkali (lye)

**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**

**Toxicokinetics, metabolism and distribution**

There are no data available on the preparation/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) > 50 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7697-37-2	nitric acid				
	inhalation vapour	ATE 2,65 mg/l			
10124-37-5	calcium nitrate				
	oral	LD50 > 300 - < 2000 mg/kg	Rat	Study report (2010)	OECD Guideline 423
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2007)	OECD Guideline 402

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#### Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.  
Serious eye damage/eye irritation: Causes serious eye irritation.

#### 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.

#### Information on likely routes of exposure

There are no data available on the preparation/mixture itself.

#### Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

#### Additional information on tests

There are no data available on the preparation/mixture itself.

#### Practical experience

There are no data available on the preparation/mixture itself.

#### 11.2. Information on other hazards

##### Endocrine disrupting properties

There are no data available on the preparation/mixture itself.

##### Other information

There are no data available on the preparation/mixture itself.

##### Further information

There are no data available on the preparation/mixture itself.

### SECTION 12: Ecological information

#### 12.1. Toxicity

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



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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
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	30 d	juvenile Topeka shiner and with juvenile Fathead m	Study report (2009) Growth tests estimated the test chemical
	Algae toxicity	NOEC mg/l	> 419	10 d	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
10124-37-5	calcium nitrate					
	Acute fish toxicity	LC50 mg/l	1378	96 h	Poecilia reticulata	Water res. 11(10):927-935 (1977) OECD Guideline 203
	Fish toxicity	NOEC	268 mg/l	30 d	juvenile Topeka shiner and with juvenile Fathead m	Study report (2009) Growth tests estimated the test chemical

**12.2. Persistence and degradability**

The methods for determining the biological degradability are not applicable to inorganic substances.

**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**

Discharge into the environment must be avoided.

**Further information**

Do not allow to enter into surface water or drains.

**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**

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**Land transport (ADR/RID)**

<b>14.1. UN number or ID number:</b>	UN 3264
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	III
Hazard label:	8
Classification code:	C1
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	80
Tunnel restriction code:	E

**Inland waterways transport (ADN)**

<b>14.1. UN number or ID number:</b>	UN 3264
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	III
Hazard label:	8
Classification code:	C1
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	UN 3264
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	III
Hazard label:	8
Special Provisions:	223, 274
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-B
Segregation group:	1 - acids

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number or ID number:</b>	UN 3264
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	III
Hazard label:	8
Special Provisions:	A3 A803
Limited quantity Passenger:	1 L
Passenger LQ:	Y841
Excepted quantity:	E1
IATA-packing instructions - Passenger:	852
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	856
IATA-max. quantity - Cargo:	60 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**SECTION 15: Regulatory information**

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**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

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

This product is regulated 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).

Water hazard class (D):

1 - slightly hazardous to water

**SECTION 16: Other information**

**Abbreviations and acronyms**

Ox. Liq: Oxidising liquid

Ox. Sol: Oxidising solid

Met. Corr: Substance or mixture corrosive to metals

Acute Tox: Acute toxicity

Skin Corr: Skin corrosion

Skin Irrit: Skin irritation

Eye Irrit: Eye irritation

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

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	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.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- 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

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