

Multiplement standard solution 30 plements in diluted HCI/HNO3 according to EBA 200.7.1

Multielement standard solution 30 elements in diluted HCI/HNO3 according to EPA 200.7 1					
Revision date: 06.05.2025	Liter cont Product code: 3440	6	Page 1 of 12		
SECTION 1: Identification of th	e substance/mixture and of the com	pany/undertaking			
1.1. Product identifier					
Multielement standard soluti	on 30 elements in diluted HCI/HNO3 acco	ording to EPA 200.7 1 Liter cont			
UFI:	3X82-93NE-E00Y-0KSX				
1.2. Relevant identified uses of th	e substance or mixture and uses advised	d against			
Use of the substance/mixture Reagents and laboratory ch Only for laboratory and anal					
Uses advised against					
Do not use for private purpo	ses (household).				
1.3. Details of the supplier of the s	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: Contact person: E-mail: Internet: Responsible Department:	info@analytichem.de Abteilung Produktsicherheit produktsicherheit@analytichem.de www.analytichem.de Abteilung Produktsicherheit	Telephone:0203/5194-107/117			
<u>1.4. Emergency telephone</u> number:	Exposure, or Accident Call CHEMTR	bus Goods] Incidents Spill, Leak, Fire, EC Day or Night Within USA and Canada: anada: +1 703-741-5970 (collect calls			
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 nitric acid Hydrochloric acid Signal word: Danger

Pictograms:





#### Multielement standard solution 30 elements in diluted HCI/HNO3 according to EPA 200.7 1

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Revision date: 06.05.2025 Product code: 34406 Page 2 of 12 Hazard statements H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. **Precautionary statements** P260 Do not breathe dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves and eye protection/face 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

Special labelling of certain mixtures

EUH071

Corrosive to the respiratory tract.

Immediately call a POISON CENTER/doctor.

#### 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	0 1272/2008)		
7697-37-2	nitric acid		5 - < 10 %	
	231-714-2	007-030-00-3 01-2119487297-23		
	Ox. Liq. 3, Met. Corr. 1, Acute Tox EUH071	x. 3, Skin Corr. 1A, Eye Dam. 1; H272	2 H290 H331 H314 H318	
7647-01-0	Hydrochloric acid			1 - < 5 %
	231-595-7	017-002-01-X	01-2119484862-27	
	Met. Corr. 1, Skin Corr. 1B, Eye D	am. 1, STOT SE 3; H290 H314 H318	3 H335	

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. I	Limits, M-factors and ATE	
7697-37-2	231-714-2	1-714-2 nitric acid	
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			
7647-01-0	231-595-7	Hydrochloric acid	1 - < 5 %
	,	- 1314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 3; H335: >= 10 - 100	

#### **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



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#### **General information**

No data available

#### 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.

#### After ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

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

corrosive Irritant Allergic reactions

#### 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: Hydrochloric gas Nitrogen oxides (NOx)

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### Additional information

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

#### General advice

Corrosive to metals. Do not breathe vapour/aerosol.

#### For non-emergency personnel

Provide adequate ventilation. Use personal protection equipment.



an analyti <b>chem</b> brand	according to Regulation (EC) No 1907/2006	
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Avoid contact with skin, eyes and c Remove persons to safety. Emergency procedures Consult an expert Do not breathe dust/fume/gas/mist/		
For emergency responders	rgency responders : Personal protection equipment: see section	18
6.2. Environmental precautions Do not allow to enter into surface w		
6.3. Methods and material for containme	ent and cleaning up	
For cleaning up Clean contaminated articles and flo Other information		
Provide adequate ventilation. Do not breathe dust/fume/gas/mist/ Wear breathing apparatus if expose		
<u>6.4. Reference to other sections</u> Safe handling: see section 7 Personal protection equipment: see Disposal: see section 13	e section 8	
SECTION 7: Handling and storage		
7.1. Precautions for safe handling		

#### Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Read label before use. Handle and open container with care. When using do not eat, drink, smoke, sniff. Keep container tightly closed. Use personal protection equipment. Provide adequate ventilation. Do not breathe vapour/aerosol. Avoid contact with skin, eyes and clothes.

#### Advice on protection against fire and explosion

Usual measures for fire prevention.

#### Advice on general occupational hygiene

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. 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.

#### 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

Keep container tightly closed.



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Hints on joint storage

national regulations

#### Further information on storage conditions

Unsuitable container/equipment material: Metal

#### 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 DNE	EL, long-term	inhalation	local	8 mg/m³		
Consumer DNE	EL, 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. Do not breathe gas/fumes/vapour/spray.

#### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Suitable eye protection: Face protection shield goggles.

#### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. 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. 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.

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 Trade name/designation: KCL 741 Dermatril® L



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Suitable material: NBR (Nitrile rubber) 0,11 mm Wearing time with permanent contact: > 480 min

By short-term hand contact Trade name/designation: KCL 741 Dermatril® L Suitable material: NBR (Nitrile rubber) 0,11 mm 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).

#### Skin protection

Wear suitable protective clothing. Protective clothing acid-resistant

#### **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.

#### 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:		
Odour:	stinging	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and		No data available
boiling range:		
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		Х
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		0
Viscosity / kinematic:		No data available
Water solubility:		No data available
Solubility in other solvents		
not determined		
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:		No data available



### Safety Data Sheet

according to Regulation (EC) No 1907/2006

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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	i				
Explosive properties					
No data available					
Sustained combustibility:	No data available				
Self-ignition temperature					
Solid:	not applicable				
Gas:	not applicable				
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				
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)

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

#### 10.4. Conditions to avoid

Heat

#### 10.5. Incompatible materials

Keep away from: 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**



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#### 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

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.

#### Information on likely routes of exposure

There are no data available on the mixture itself.

#### 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

#### **Endocrine disrupting properties**

There are no data available on the mixture itself.

#### Other information

There are no data available on the mixture itself.

#### Further information

corrosive

#### Irritant

#### **SECTION 12: Ecological information**



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#### 12.1. Toxicity

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

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
7647-01-0	Hydrochloric acid						
	Acute fish toxicity	LC50	862 mg/l	96 h	Leuciscus idus		

#### 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

Discharge into the environment must be avoided.

Harmful effect due to pH shift.

Forms corrosive mixtures with water even if diluted.

#### **Further information**

There are no data available on the mixture itself.

#### **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

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)



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<u>14.1. UN number or ID number:</u> 14.2. UN proper shipping name:	UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid, Hydrochloric acid)			
14.3. Transport hazard class(es):	8			
14.4. Packing group:				
Hazard label:	8			
Classification code:	C1			
Special Provisions:	274			
Limited quantity:	1L			
Excepted quantity:	E2			
Transport category:	2			
Hazard No: Tunnel restriction code:	80 E			
	E			
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. (nitric acid, Hydrochloric acid)			
<u>14.3. Transport hazard class(es):</u>	8			
14.4. Packing group:	II			
Hazard label:	8			
Classification code:	C1			
Special Provisions:	274			
Limited quantity:	1L			
Excepted quantity:	E2			
Marine transport (IMDG)				
<u>14.1. UN number or ID number:</u>	UN 3264			
14.2. UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid,			
	Hydrochloric acid)			
<u>14.3. Transport hazard class(es):</u>	8			
14.4. Packing group:	II			
Hazard label:	8			
Special Provisions:	274			
Limited quantity:	1L			
Excepted quantity:	E2			
EmS:	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. (Nitric acid,			
	Hydrochloric acid)			
14.3. Transport hazard class(es):	8			
14.4. Packing group:	II			
Hazard label:	8			
Special Provisions:	A3 A803			
Limited quantity Passenger:	0.5 L			
Passenger LQ:	Y840			
Excepted quantity:	E2			
IATA-packing instructions - Passenger:	851			
IATA-max. quantity - Passenger:	1 L			
IATA-packing instructions - Cargo:	855			
IATA-max. quantity - Cargo:	30 L			
14.5. Environmental hazards				
ENVIRONMENTALLY HAZARDOUS:	No			



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#### **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

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

work protection guideline' (94/33/EC).

1 - slightly hazardous to water

Observe restrictions to employment for juveniles according to the 'juvenile

2012/18/EU (SEVESO III):

Information according to Directive

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:

Water hazard class (D):

# SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1,2,9,11,12,15.

#### 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 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 Harmonized 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 LC50: Lethal concentration. 50% LD50: Lethal dose, 50%

#### 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 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.



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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. 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.)