

Multielement-Standardlösung 12 Elemente in Salzsäure 0,1 mol/l

Revision date: 18.01.2024

Product code: 29627

Page 1 of 12

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

1.1. Product identifier

Multielement-Standardlösung 12 Elemente in Salzsäure 0,1 mol/l

UFI:

5M1N-G228-P00X-R4XM

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	
<u>1.4. Emergency telephone</u> number:	Exposure, or Accident Call CHEMTF	ous Goods] Incidents Spill, Leak, Fire, REC Day or Night Within USA and Canada: anada: +1 703-741-5970 (collect calls

Further Information

inapplicable, this product is a mixture REACH registration number see section 3

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Met. Corr. 1; H290

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Pictograms:

GB CLP Regulation

Signal word:

Warning



Hazard statements

H290

May be corrosive to metals.

Precautionary statements

P234	Keep only in original packaging.
P390	Absorb spillage to prevent material damage.



Safety Data Sheet

according to UK REACH Regulation

Multielement-Standardlösung 12 Elemente in Salzsäure 0,1 mol/l

Revision date: 18.01.2024

Product code: 29627

Page 2 of 12

P406

Store in a corrosion-resistant container with a resistant inner liner.

Special labelling of certain mixtures

EUH208 Contains nickel dichloride. May produce an allergic reaction.

2.3. Other hazards

No information 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 (GB CLP Regu	lation)				
7647-01-0	Hydrochloric acid			< 1 %		
	231-595-7	017-002-01-X	01-2119484862-27			
	Skin Corr. 1B, STOT SE 3; H	314 H335	,			
7718-54-9	nickel dichloride	< 0.01 %				
	231-743-0	028-011-00-6				
			n Irrit. 2, Resp. Sens. 1, Skin Sens. 1, H360D H331 H301 H315 H334			

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	
7647-01-0	231-595-7	Hydrochloric acid	< 1 %
	,	H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 3; H335: >= 10 - 100	
7718-54-9	231-743-0	nickel dichloride	< 0.01 %
	mg/kg Skin Irr	,	

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.



Multielement-Standardlösung 12 Elemente in Salzsäure 0,1 mol/l

Revision date: 18.01.2024

Product code: 29627

Page 3 of 12

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

Irritant

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-flammable.

5.3. Advice for firefighters

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

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.

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

Trecadionary statements

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.



Multielement-Standardlösung 12 Elemente in Salzsäure 0,1 mol/l

Revision date: 18.01.2024

Product code: 29627

Page 4 of 12

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. When using do not eat, drink, smoke, sniff. Handle and open container with care. 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

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.

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

Revision No: 1,04 - Replaces version: 1,03



Multielement-Standardlösung 12 Elemente in Salzsäure 0,1 mol/l

Revision date: 18.01.2024

Product code: 29627

Page 5 of 12

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
7647-01-0	Hydrogen chloride (gas and aerosol mists)	1	2		TWA (8 h)	WEL
		5	8		STEL (15 min)	WEL
-	Nickel and its inorganic compounds (except nickel tetracarbonyl): water-soluble nickel compounds (as Ni)	-	0.1		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
7647-01-0	Hydrochloric acid			
Worker DNE	EL, long-term	inhalation	local	8 mg/m³
Worker DNE	EL, acute	inhalation	local	15 mg/m³
Consumer D	DNEL, long-term	inhalation	local	8 mg/m³
Consumer D	DNEL, acute	inhalation	local	15 mg/m³
7718-54-9	nickel dichloride			
Worker DNE	EL, acute	inhalation	local	1,6 mg/m ³
Consumer D	DNEL, acute	inhalation	systemic	8,8 mg/m ³
Consumer D	DNEL, acute	inhalation	local	0,1 mg/m³
Worker DNE	EL, acute	inhalation	systemic	104 mg/m ³
Consumer D	NEL, long-term	oral	systemic	0,02 mg/kg bw/day
Consumer D	NEL, acute	oral	systemic	0,012 mg/kg bw/day

PNEC values

CAS No	Substance			
Environmental compartment Value				
7718-54-9	nickel dichloride			
Freshwater		0,0071 mg/l		
Freshwater (intermittent releases) 0 mg/l				
Marine water 0,				
Freshwater sediment 109 mg/kg				
Marine sediment 109 mg/kg				
Secondary poi	0,12 mg/kg			
Micro-organism	0,33 mg/l			
Soil	Soil			

8.2. Exposure controls

Appropriate engineering controls

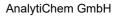
Technical measures and the application of suitable work processes have priority over personal protection equipment.

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

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection.





Multielement-Standardlösung 12 Elemente in Salzsäure 0,1 mol/l

Revision date: 18.01.2024

Product code: 29627

Page 6 of 12

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.

Suitable examples are gloves of KCL GmbH, D-36124 Eichenzell, e-mail: vertrieb@kcl.de with the following specification (test according to EN 374):

By long-term hand contact Trade name/designation: KCL 741 Dermatril® L Recommended 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 Recommended 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. Take off immediately all contaminated clothing. Wash hands before breaks and after work.

Respiratory protection

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: Colour: Odour:	Liquid colourless odourless	
Odour threshold:	No data available	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and		?
boiling range:		
Flammability:		not applicable
		not applicable
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		Х
Auto-ignition temperature:		No data available
Decomposition temperature:		not determined
pH-Value:		acidic
Viscosity / kinematic:		No data available



	ndardlösung 12 Elemente in Salzsäure 0,1 mol/l	Daga 7 of 40
Revision date: 18.01.2024	Product code: 29627	Page 7 of 12
Solubility in other solvents		
not determined		
Partition coefficient n-octanol/water:	not determined	
Vapour pressure:	No data available	
Vapour pressure:	No data available	
Density:	1,0005 g/cm³	
Bulk density:	No data available	
Relative vapour density:	not determined	
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:	not applicable	
Gas:	not applicable	
Oxidizing properties		
Not oxidising.		
Other safety characteristics		
Evaporation rate:	not determined	
Solvent separation test:	No data available	
Solvent content:	0	
Solid content:	not determined	
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

none

10.5. Incompatible materials

Keep away from: Metal.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

Further information

No data available

SECTION 11: Toxicological information



Safety Data Sheet according to UK REACH Regulation

Multielement-Standardlösung 12 Elemente in Salzsäure 0,1 mol/l

Revision date: 18.01.2024

Product code: 29627

Page 8 of 12

11.1. Information on hazard classes as defined in GB CLP Regulation

Toxicocinetics, 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) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
7718-54-9	nickel dichloride					
	oral	LD50 mg/kg	500	Rat	Regul Toxicol and Pharmacol (doi.org/10.	OECD Guideline 425
	inhalation vapour	ATE	3 mg/l			
	inhalation dust/mist	ATE	0,5 mg/l			

Irritation and corrosivity

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

Sensitising effects

Based on available data, the classification criteria are not met. Contains nickel dichloride. May produce an allergic reaction.

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

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 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

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

The product is not: Ecotoxic.



Multielement-Standardlösung 12 Elemente in Salzsäure 0,1 mol/l

Revision date: 18.01.2024

Product code: 29627

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			
7718-54-9	nickel dichloride							
	Acute fish toxicity	LC50 mg/l	15,3	96 h	Oncorhynchus mykiss	Aquatic Toxicology 63 (2003) 65-82 (2003	other: not reported	
	Acute algae toxicity	ErC50 mg/l	0,263	72 h	Spermatozopsis exsultans	Publication (2009)	OECD Guideline 201	
	Acute crustacea toxicity	EC50 mg/l	> 0,2	48 h	Ceriodaphnia dubia	Environmental Toxicology and Chemistry.	other: comparable to USEPA, Methods for	
	Fish toxicity	NOEC mg/l	0,04	8 d	Danio rerio	Arch. Environ. Contam. Toxicol. 21:126-1	other: Swedish Standard SS 02 81 93	
	Algae toxicity	NOEC	0,6 mg/l	14 d	Anabaena cylindrica	Environ. Pollut. (Series A). 25(4):241-2	other: not reported	
	Crustacea toxicity	NOEC mg/l	0,09	21 d	Daphnia magna	Water Res. 23(4):501-510 (1989)	other: DIN 38412, Part II	
	Acute bacteria toxicity	EC50)	33 mg/l (0,5 h	Activated sludge	Journal of Hazardous Materials. B139:332	ISO 8192	

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

BCF

CAS No	Chemical name	BCF	Species	Source
7718-54-9	nickel dichloride	39	Chlorella salina	J. Mar. Biol. Ass. U

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH. The product has not been tested.

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

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations



Multielement-Standardlösung 12 Elemente in Salzsäure 0,1 mol/l

Revision date: 18.01.2024

Product code: 29627

Page 10 of 12

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.

Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

SECTION 14: Transport information

Land transport (ADR/RID)	
14.1. UN number or ID number:	UN 1789
14.2. UN proper shipping name:	HYDROCHLORIC ACID
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8
Classification code:	C1
Special Provisions:	520
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	80
Tunnel restriction code:	E
Inland waterways transport (ADN)	
14.1. UN number or ID number:	UN 1789
14.2. UN proper shipping name:	HYDROCHLORIC ACID
14.3. Transport hazard class(es):	8
14.4. Packing group:	
Hazard label:	8
Classification code:	C1
Special Provisions:	520
Limited quantity:	5 L
Excepted quantity:	E1
Marine transport (IMDG)	
14.1. UN number or ID number:	UN 1789
14.2. UN proper shipping name:	
14.3. Transport hazard class(es):	8
14.4. Packing group:	
Hazard label:	8
Special Provisions:	223
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-B
Segregation group:	1 - acids
Air transport (ICAO-TI/IATA-DGR)	
14.1. UN number or ID number:	UN 1789
14.2. UN proper shipping name:	
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8



Multielement-Standardlösung 12 Elemente in Salzsäure 0,1 mol/l			
Revision date: 18.01.2024	Product code: 29627	Page 11 of 12	
Special Provisions: Limited quantity Passenger: Passenger LQ: Excepted quantity: IATA-packing instructions - Passenger: IATA-max. quantity - Passenger: IATA-packing instructions - Cargo: IATA-max. quantity - Cargo: 14.5. Environmental hazards	A3 A803 1 L Y841 E1 852 5 L 856 60 L		
ENVIRONMENTALLY HAZARDOUS:	No		
14.6. Special precautions for user Warning: strongly corrosive. 14.7. Maritime transport in bulk according to 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 27, Entry 75 Marketing and use of explosives precursor This product is regulated by Regulatior			
National regulatory information			
Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juve work protection guideline' (94/33/EC).	enile	
Water hazard class (D):	1 - slightly hazardous to water		
Skin resorption/Sensitization:	Causes allergic hypersensitivity reactions.		
15.2. Chemical safety assessment			
Chemical safety assessments for substances in this mixture were not carried out.			

SECTION 16: Other information

Changes

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



Multielement-Standardlösung 12 Elemente in Salzsäure 0,1 mol/l

Revision date: 18.01.2024

Product code: 29627

Page 12 of 12

Abbreviations and acronyms

Met. Corr: Corrosive to metals Acute Tox: Acute toxicity Skin Corr: Skin corrosion Skin Irrit: Skin irritation Resp. Sens: Respiratory sensitisation Skin Sens: Skin sensitisation Muta: Germ cell mutagenicity Carc: Carcinogenicity Repr: Reproductive toxicity STOT SE: Specific target organ toxicity - single exposure STOT RE: Specific target organ toxicity - repeated exposure Aquatic Acute: Acute aquatic hazard Aquatic Chronic: Chronic aquatic hazard 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% Relevant H and EUH statements (number and full text) May be corrosive to metals. H290 H301 Toxic if swallowed. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. May cause an allergic skin reaction. H317 H331 Toxic if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. Suspected of causing genetic defects. H341 H350i May cause cancer by inhalation. H360D May damage the unborn child. H372 Causes damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. EUH208 Contains nickel dichloride. May produce an allergic reaction.

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