

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 1 of 14

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

1.1. Product identifier

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

UFI: 17RE-H23R-K00K-65NS

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 telephoneFor Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,number: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.



according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 2 of 14

H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements

P302+P352

P280 Wear protective gloves and eye/face protection.

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

present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of water.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P406 Store in a corrosion-resistant container with a resistant inner liner.

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			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	1314 EUH071			
1336-21-6	Ammonia			< 0.001 %	
	215-647-6	007-001-01-2	01-2119488876-14		
	Skin Corr. 1B, Aquatic Acute 1, Aq				
7664-39-3	hydrofluoric acid %		< 0.0001 %		
	231-634-8	009-003-00-1			
	Acute Tox. 1, Acute Tox. 2, Acute Tox. 2, Skin Corr. 1A; H310 H330 H300 H314				

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	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						
1336-21-6	215-647-6	Ammonia	< 0.001 %				
	inhalation: LC5 Aquatic Acute 1	0 = 4230 mg/l (vapours); oral: LD50 = 350 mg/kg STOT SE 3; H335: >= 5 - 100 ; H400: M=10					
7664-39-3	231-634-8	hydrofluoric acid %	< 0.0001 %				
	inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); inhalation: LC50 = 2240 ppm (gases); dermal: ATE = 5 mg/kg; oral: ATE = 5 mg/kg Skin Corr. 1A; H314: >= 7 - 100 Skin Corr. 1B; H314: >= 1 - < 7 Eye Irrit. 2; H319: >= 0,1 - < 1						

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).



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 3 of 14

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.

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

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 (NOx)

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



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 4 of 14

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

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.

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

No special fire protection measures are necessary.

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.



according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 5 of 14

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

No special measures are necessary.

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
7429-90-5	Aluminium metal (Respirable Fraction)	-	1		TWA (8 h)	
7664-41-7	Ammonia, anhydrous	20	14		TWA (8 h)	
		50	36		STEL (15 min)	
12125-02-9	Ammonium chloride, fume	-	10		TWA (8 h)	
		-	20		STEL (15 min)	
10043-35-3	Borate compounds inorganic: boric acid	-	2		TWA (8 h)	
7440-50-8	Copper, dusts and mists	-	1		TWA (8 h)	
7664-39-3	Hydrogen fluoride (as F)	1.8	1.5		TWA (8 h)	
		3	2.5		STEL (15 min)	
7697-37-2	Nitric acid	1	2.6		STEL (15 min)	

Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
7664-39-3	Hydrogen fluoride	Fluoride	2 mg/L	Urine	Prior to shift



according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 6 of 14

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
12125-02-9	ammonium chloride			
Consumer DN	IEL, long-term	inhalation	systemic	9,9 mg/m³
Consumer DNEL, long-term		dermal	systemic	114 mg/kg bw/day
Consumer DN	IEL, long-term	oral	systemic	11,4 mg/kg bw/day
Worker DNEL	, long-term	inhalation	systemic	33,5 mg/m³
Worker DNEL	, long-term	dermal	systemic	190 mg/kg bw/day
10043-35-3	boric acid			
Worker DNEL	, long-term	inhalation	systemic	8,3 mg/m³
Worker DNEL	, long-term	dermal	systemic	392 mg/kg bw/day
Consumer DN	IEL, long-term	inhalation	systemic	4,15 mg/m³
Consumer DN	IEL, long-term	dermal	systemic	196 mg/kg bw/day
Consumer DN	IEL, long-term	oral	systemic	0,98 mg/kg bw/day
Consumer DN	IEL, acute	oral	systemic	0,98 mg/kg bw/day
1336-21-6	Ammonia			
Worker DNEL, long-term		inhalation	systemic	47,6 mg/m³
Worker DNEL	, acute	inhalation	systemic	47,6 mg/m³
Worker DNEL	, long-term	inhalation	local	14 mg/m³
Worker DNEL	, acute	inhalation	local	36 mg/m³
Worker DNEL	, long-term	dermal	systemic	6,8 mg/kg bw/day
Worker DNEL	, acute	dermal	systemic	6,8 mg/kg bw/day
Consumer DN	IEL, long-term	inhalation	systemic	23,8 mg/m³
Consumer DN	IEL, acute	inhalation	systemic	23,8 mg/m³
Consumer DN	IEL, long-term	inhalation	local	2,8 mg/m³
Consumer DN	IEL, acute	inhalation	local	7,2 mg/m³
Consumer DN	IEL, long-term	dermal	systemic	68 mg/kg bw/day
Consumer DN	IEL, acute	dermal	systemic	68 mg/kg bw/day
Consumer DN	IEL, long-term	oral	systemic	6,8 mg/kg bw/day
Consumer DN	IEL, acute	oral	systemic	6,8 mg/kg bw/day
7664-39-3	hydrofluoric acid %			
Worker DNEL, long-term		inhalation	systemic	1,5 mg/m³
Worker DNEL, acute		inhalation	systemic	2,5 mg/m³
Worker DNEL, long-term		inhalation	local	1,5 mg/m³
Worker DNEL, acute		inhalation	local	2,5 mg/m³
Consumer DNEL, long-term		inhalation	systemic	0,03 mg/m³
Consumer DN	IEL, acute	inhalation	systemic	0,03 mg/m³
Consumer DN	IEL, long-term	inhalation	local	0,2 mg/m³
Consumer DN	IEL, acute	inhalation	local	1,25 mg/m³



according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 7 of 14

Consumer DNEL, long-term	oral	l *	0,01 mg/kg bw/day
Consumer DNEL, acute	oral	1 7	0,01 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental	compartment	Value
12125-02-9	ammonium chloride	
Freshwater		1,2 mg/l
Freshwater (int	ermittent releases)	1,2 mg/l
Marine water		11,2 mg/l
Micro-organism	s in sewage treatment plants (STP)	16,2 mg/l
Soil		0,163 mg/kg
10043-35-3	boric acid	
Freshwater		2,9 mg/l
Freshwater (int	ermittent releases)	13,7 mg/l
Marine water		2,9 mg/l
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		5,7 mg/kg
1336-21-6	Ammonia	
Freshwater		0,001 mg/l
Freshwater (int	ermittent releases)	0,007 mg/l
Marine water		0,001 mg/l
7664-39-3	hydrofluoric acid %	
Freshwater		0,89 mg/l
Marine water		0,089 mg/l
Freshwater sediment		3,38 mg/kg
Marine sediment		0,338 mg/kg
Micro-organism	s in sewage treatment plants (STP)	51 mg/l
Soil		10,6 mg/kg

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

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.



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 8 of 14

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
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

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:

Odour: odourless
Odour threshold: No data available

Melting point/freezing point:

Boiling point or initial boiling point and

No data available

No data available

boiling range:

Lower explosion limits:

Flammability: not applicable not applicable

No data available No data available

Upper explosion limits:

Flash point:

Auto-ignition temperature:

Decomposition temperature:

No data available

No data available

not determined

pH-Value: 0

Viscosity / kinematic:

Water solubility:

No data available completely miscible

Solubility in other solvents not determined



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 9 of 14

Partition coefficient n-octanol/water:

Vapour pressure:

Vapour pressure:

No data available

Vapour pressure:

No data available

Density:

1,012 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:

Solvent separation test:

No data available
Solvent content:

Solid content:

Sublimation point:

No data available
Softening point:

No data available
Pour point:

No data available
No data available:

Viscosity / dynamic:

Flow time:

No data available

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



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 10 of 14

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 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		
7697-37-2	nitric acid							
	inhalation vapour	ATE 2,6	5 mg/l					
1336-21-6	Ammonia	Ammonia						
	oral	LD50 mg/kg	350	Rat	Journal of Industrial Hygiene and Toxico	OECD Guideline 401		
	inhalation (1 h) vapour	LC50	4230 mg/l	Mouse	Bull. Environm. Contam. Toxicol, 1982, 2	Assessment of acute inhalation toxicity		
7664-39-3	hydrofluoric acid %							
	oral	ATE	5 mg/kg					
	dermal	ATE	5 mg/kg					
	inhalation vapour	ATE	0,5 mg/l					
	inhalation dust/mist	ATE	0,05 mg/l					
	inhalation (1 h) gas	LC50 ppm	2240	Rat	Study report (1990)	OECD Guideline 403		

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

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.



according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 11 of 14

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

There are no data available on the mixture itself.

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		
1336-21-6	Ammonia								
	Acute fish toxicity	LC50 3,4 mg/l	0,75 -	96 h	Pimephales promelas	Trans Amer Fish Soc; 112 (5). 1983. 705-	Assessment of acute toxicity in the fath		
	Acute crustacea toxicity	EC50	101 mg/l	48 h	Daphnia magna	Environ. Toxicol. Chem. 5: 443-447 (1986	other: ASTM E729-80		
	Fish toxicity	NOEC	1,2 mg/l	61 d	Oncorhynchus gorbuscha	Fish. Bull. 78(3): 641-648 (1980)	OECD Guideline 210		
7664-39-3	hydrofluoric acid %								
	Acute fish toxicity	LC50	299 mg/l	96 h	Salmo trutta	REACh Registration Dossier	other: U.S Environmental Protection Agen		
	Acute algae toxicity	ErC50	43 mg/l	96 h	various algae species	REACh Registration Dossier	Methods not detailed in the review.		
	Crustacea toxicity	NOEC	3,7 mg/l	21 d	Daphnia magna	REACh Registration Dossier	The publication is a review article of v		
	Acute bacteria toxicity	EC50 mg/l ()	2930	3 h	Activated sludge	REACh Registration Dossier	ISO 8192		

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.



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 12 of 14

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
1336-21-6	Ammonia	-1,38

BCF

CAS No	Chemical name	BCF	Species	Source
7664-39-3	hydrofluoric acid %	53 - 58	not specified	REACh Registration D

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.

There are no data available on the mixture itself.

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.

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 3264

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

14.3. Transport hazard class(es): 14.4. Packing group: Ш Hazard label: R Classification code: C₁ **Special Provisions:** 274 Limited quantity: 5 I Excepted quantity: E1 Transport category: 3 Hazard No: 80 Tunnel restriction code: Ε

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)



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 13 of 14

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8Classification code:C1Special Provisions:274Limited quantity:5 LExcepted quantity:E1

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. (nitric acid)

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8Special Provisions:223, 274Limited quantity:5 LExcepted quantity:E1EmS:F-A, S-B

Segregation group:
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)

1 - acids

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8Special Provisions:A3 A803Limited quantity Passenger:1 LPassenger LQ:Y841Excepted quantity:E1

IATA-packing instructions - Passenger:852IATA-max. quantity - Passenger:5 LIATA-packing instructions - Cargo:856IATA-max. quantity - Cargo:60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: strongly corrosive.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 30, 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).



according to Regulation (EC) No 1907/2006

Multielement-Standardlösung Spurenelemente 3.0 +Chlorid Nr. 6 11 Kationen + 1 Anion in Salpetersäure

Revision date: 10.04.2024 Product code: 27351 Page 14 of 14

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

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.

Abbreviations and acronyms

Pyr. Sol: Pyrophoric solid

Water-react: Substance and mixture which, in contact with water, emits flammable gas

Ox. Liq: Oxidising liquid

Met. Corr: Substance or mixture corrosive to metals

Flam. Sol: Flammable solid Acute Tox: Acute toxicity Skin Corr: Skin corrosion Skin Irrit: Skin irritation Eye Irrit: Eye irritation Repr: Reproductive toxicity

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)

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

H300 Fatal if swallowed.

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation. H319 Causes serious eye irritation.

H330 Fatal if inhaled.
H331 Toxic if inhaled.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

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