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

1.1. Product identifier

Multielement-Standardlösung 12 Elemente in Salzsäure etwa 10 % (enthält 10 g Li2B4O7/l)

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	
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
Skin Sens. 1; H317
STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

Hydrochloric acid
nickel dichloride

Signal word: Warning

Pictograms:

Hazard statements

H290	May be corrosive to metals.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7647-01-0	Hydrochloric acid			10 - < 15 %
	231-595-7	017-002-01-X	01-2119484862-27	
	Skin Corr. 1B, STOT SE 3; H314 H335			
12007-60-2	dilithium tetraborate			< 1 %
	234-514-3		01-2120770724-49	
	Repr. 2, Acute Tox. 4, Eye Dam. 1; H361d H302 H318			
7697-37-2	nitric acid			< 1 %
	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			
10125-13-0	Kupfer-II-chlorid-2-hydrat			< 0.1 %
			01-2119970306-36	
	Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 2; H312 H302 H315 H318 H400 H411			
7718-54-9	nickel dichloride			< 0.1 %
	231-743-0	028-011-00-6		
	Carc. 1A, Muta. 2, Repr. 1B, Acute Tox. 3, Acute Tox. 3, Skin Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT RE 1, Aquatic Acute 1, Aquatic Chronic 1; H350i H341 H360D H331 H301 H315 H334 H317 H372 H400 H410			

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	10 - < 15 %
	Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25 STOT SE 3; H335: >= 10 - 100		
12007-60-2	234-514-3	dilithium tetraborate	< 1 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 500 mg/kg		
7697-37-2	231-714-2	nitric acid	< 1 %
	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		
10125-13-0		Kupfer-II-chlorid-2-hydrat	< 0.1 %
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 584 mg/kg Aquatic Acute 1; H400: M=10		
7718-54-9	231-743-0	nickel dichloride	< 0.1 %
	inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); oral: LD50 = 500 mg/kg Skin Irrit. 2; H315: >= 20 - 100 Skin Sens. 1; H317: >= 0,01 - 100 STOT RE 1; H372: >= 1 - 100 STOT RE 2; H373: >= 0,1 - < 1 Aquatic Acute 1; H400: M=1 Aquatic Chronic 1; H410: M=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).

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.

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

Irritant — skin irritation and eye damage

Cough

Dyspnoea

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

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.
Avoid contact with skin, eyes and clothes.

Additional information

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

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. Use extractor hood (laboratory).
Provide adequate ventilation.
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.

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.
Provide adequate ventilation as well as local exhaustion at critical locations.
Keep in a cool place.

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)	
-	Nickel, inorganic compounds (as Ni), soluble compounds	-	0.1		TWA (8 h)	
7697-37-2	Nitric acid	1	2.6		STEL (15 min)	

Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
-	Nickel compounds	Ni	3 µg/L	Urine	After several consecutive working shifts

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
7647-01-0	Hydrochloric acid			
Worker DNEL, long-term		inhalation	local	8 mg/m³
Worker DNEL, acute		inhalation	local	15 mg/m³
Consumer DNEL, long-term		inhalation	local	8 mg/m³
Consumer DNEL, acute		inhalation	local	15 mg/m³
12007-60-2	dilithium tetraborate			
Worker DNEL, long-term		inhalation	systemic	7,1 mg/m³
Worker DNEL, acute		inhalation	systemic	7,1 mg/m³
Worker DNEL, long-term		dermal	systemic	333 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,74 mg/m³
Consumer DNEL, acute		inhalation	systemic	1,74 mg/m³
Consumer DNEL, long-term		dermal	systemic	166 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,83 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	0,83 mg/kg bw/day
7718-54-9	nickel dichloride			
Worker DNEL, acute		inhalation	local	1,6 mg/m³
Consumer DNEL, acute		inhalation	systemic	8,8 mg/m³
Consumer DNEL, acute		inhalation	local	0,1 mg/m³
Worker DNEL, acute		inhalation	systemic	104 mg/m³
Consumer DNEL, long-term		oral	systemic	0,02 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	0,012 mg/kg bw/day

PNEC values

CAS No	Substance
Environmental compartment	Value
12007-60-2	dilithium tetraborate
Micro-organisms in sewage treatment plants (STP)	44 mg/l
10125-13-0	Kupfer-II-chlorid-2-hydrat
Freshwater	0,0078 mg/l
Marine water	0,0052 mg/l
Freshwater sediment	87 mg/kg
Marine sediment	676 mg/kg
Micro-organisms in sewage treatment plants (STP)	0,23 mg/l
Soil	65 mg/kg
7718-54-9	nickel dichloride
Freshwater	0,0071 mg/l
Freshwater (intermittent releases)	0 mg/l
Marine water	0,0086 mg/l
Freshwater sediment	109 mg/kg
Marine sediment	109 mg/kg
Secondary poisoning	0,12 mg/kg
Micro-organisms in sewage treatment plants (STP)	0,33 mg/l
Soil	29,9 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. 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
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.
Protective clothing acid-resistant

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:	Liquid
Colour:	clear
Odour:	stinging
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:	not applicable
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	X
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value:	acidic
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 (at 20 °C):	No data available
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:	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:	No data available
Solid content:	No data available
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
No data available:	
Viscosity / dynamic:	No data available
Flow time:	No data available

Further Information

Corrosive to metals

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Amines, permanganates, e.g. potassium permanganate, aldehydes
Ignition hazard: Carbide, Fluorine
Possibility of hazardous reactions: Aluminium, Formaldehyde, Metal, Alkali (lye)
Danger of explosion: Alkali metals, Sulphuric acid, concentrated

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

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.
Pulmonary oedema

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
12007-60-2	dilithium tetraborate				
	oral	LD50 500 mg/kg	Rat	Study report (2017)	OECD Guideline 423
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2017)	OECD Guideline 402
7697-37-2	nitric acid				
	inhalation vapour	ATE 2,65 mg/l			
10125-13-0	Kupfer-II-chlorid-2-hydrat				
	oral	LD50 584 mg/kg	Rat	Publication (1991)	The test material was administered to gr
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2003)	OECD Guideline 402
7718-54-9	nickel dichloride				
	oral	LD50 500 mg/kg	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

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

May cause an allergic skin reaction. (nickel dichloride)

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause respiratory irritation. (Hydrochloric acid)

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

Irritant — skin irritation and eye damage
Cough
Dyspnoea

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
7647-01-0	Hydrochloric acid						
	Acute fish toxicity	LC50	862 mg/l	96 h	Leuciscus idus		
12007-60-2	dilithium tetraborate						
	Acute fish toxicity	LC50 mg/l	> 100	96 h	Cyprinus carpio	REACh Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Pseudokirchneriella subcapitata	REACh Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	REACh Registration Dossier	OECD Guideline 202
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
10125-13-0	Kupfer-II-chlorid-2-hydrat						
	Acute fish toxicity	LC50 mg/l	0,193	96 h	Pimephales promelas	Study report (1996)	measurements were conducted by standard
	Acute algae toxicity	ErC50 mg/l	0,152	72 h	Pseudokirchneriella subcapitata	Publication (2005)	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	0,007	48 h	Daphnia magna	Study report (1978)	- Test were conducted on Daphnia magna t
	Fish toxicity	NOEC mg/l	0,123	12 d	Atherinops affinis	Mar. Environ. Res. 31: 17-35 (1991)	Three tests are reported, designed to de
	Algae toxicity	NOEC mg/l	0,0102	19 d	other aquatic plant: giant kelp Macrocystis pyrife	Mar. Ecol. Prog. Ser. 68: 147 - 156 (199	Tests were conducted to determine the ef
	Crustacea toxicity	NOEC mg/l	0,033	14 d	Penaeus mergulensis and Penaeus monodon	Bull. Environ. Contain. Toxicol. (1995)	The effects of dissolved copper on the g
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	0,04 mg/l	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	0,09 mg/l	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

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

BCF

CAS No	Chemical name	BCF	Species	Source
10125-13-0	Kupfer-II-chlorid-2-hydrat	0,02 - 20	Crangon crangon	Symp. Biologica. Hun
7718-54-9	nickel dichloride	39	Chlorella salina	J. Mar. Biol. Ass. U

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 empty into 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

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:	II
Hazard label:	8
Classification code:	C1
Special Provisions:	520
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
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:	II
Hazard label:	8
Classification code:	C1
Special Provisions:	520
Limited quantity:	1 L
Excepted quantity:	E2

Marine transport (IMDG)

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:	II
Hazard label:	8
Special Provisions:	-
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

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:	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

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 27, Entry 75

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

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):	2 - obviously hazardous to water

SECTION 16: Other information

Changes

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

Abbreviations and acronyms

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%
Ox. Liq: Oxidising liquid
Met. Corr: Substance or mixture corrosive to metals
Acute Tox: Acute toxicity
Skin Corr: Skin corrosion
Skin Irrit: Skin irritation
Eye Dam: Eye damage
Eye Irrit: Eye 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

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
Skin Sens. 1; H317	Calculation method
STOT SE 3; H335	Calculation method

Relevant H and EUH statements (number and full text)

H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.

H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H360D	May damage the unborn child.
H361d	Suspected of damaging 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.
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 hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)