

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Multielement-Standardlösung "4" 10 Elemente je 1000 mg/l in Salpetersäure 9%

Revision date: 23.04.2024

Product code: 31556

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

1.1. Product identifier

Multielement-Standardlösung "4" 10 Elemente je 1000 mg/l in Salpetersäure 9%

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name:	AnalytiChem GmbH ACD	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
E-mail:	info@analytichem.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
E-mail:	produktsicherheit@analytichem.de	
Internet:	www.analytichem.de	
Responsible Department:	Abteilung Produktsicherheit	

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Met. Corr. 1; H290

Acute Tox. 4; H302

Acute Tox. 4; H332

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

ammonium trioxovanadate

uranyl nitrate, hexahydrate

thallium nitrate

Signal word: Danger

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Pictograms:



Hazard statements

- | | |
|-----------|--|
| H290 | May be corrosive to metals. |
| H302+H332 | Harmful if swallowed or if inhaled. |
| H314 | Causes severe skin burns and eye damage. |

Precautionary statements

- | | |
|----------------|--|
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing 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 | Immediately call a POISON CENTER/doctor. |

Special labelling of certain mixtures

- | | |
|--------|-------------------------------------|
| EUH071 | Corrosive to the respiratory tract. |
|--------|-------------------------------------|

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution

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Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 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. 3, Skin Corr. 1A; H272 H290 H331 H314 EUH071			
7803-55-6	ammonium trioxovanadate			< 1 %
	232-261-3			
	Repr. 2, Acute Tox. 3, Acute Tox. 4, Eye Irrit. 2, STOT RE 1, Aquatic Chronic 2; H361d H301 H332 H319 H372 H411			
13520-83-7	uranyl nitrate, hexahydrate			< 1 %
	233-266-3	092-002-00-3		
	Acute Tox. 2, Acute Tox. 2, STOT RE 2, Aquatic Chronic 2; H330 H300 H373 H411			
7446-08-4	selenium dioxide			< 1 %
	231-194-7	034-002-00-8		
	Acute Tox. 3, Acute Tox. 3, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H331 H301 H373 H400 H410			
10102-45-1	thallium nitrate			< 1 %
	233-273-1	081-002-00-9		
	Acute Tox. 2, Acute Tox. 2, STOT RE 2, Aquatic Chronic 2; H330 H300 H373 H411			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
7697-37-2	231-714-2	nitric acid	5 - < 10 %
	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		
7803-55-6	232-261-3	ammonium trioxovanadate	< 1 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = 2,61 mg/l (dusts or mists); dermal: LD50 = > 2500 mg/kg; oral: LD50 = 218,1 mg/kg		
13520-83-7	233-266-3	uranyl nitrate, hexahydrate	< 1 %
	inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); oral: ATE = 5 mg/kg		
7446-08-4	231-194-7	selenium dioxide	< 1 %
	inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); oral: LD50 = 68,1 mg/kg		
10102-45-1	233-273-1	thallium nitrate	< 1 %
	inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); oral: ATE = 5 mg/kg		

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection!

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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.
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

Causes burns.
Irritant
Cough
Dyspnoea
Vomiting
Methaemoglobinaemia
Risk of serious damage to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible liquids
Hazardous combustion products
In case of fire may be liberated:
Nitrogen oxides (NO_x)
Metal oxide smoke, toxic

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.
In case of fire and/or explosion do not breathe fumes.
Avoid contact with skin, eyes and clothes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Move undamaged containers from immediate hazard area if it can be done safely.
Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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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

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. Handle and open container with care.
When using do not eat, drink, smoke, sniff. Use personal protection equipment.
Provide adequate ventilation. Avoid contact with skin, eyes and clothes.
Do not breathe vapour/aerosol.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately.
Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

Further information on handling

Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary.
Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

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Requirements for storage rooms and vessels

Corrosive to metals.

Unsuitable container/equipment material: Metal

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

Further information on storage conditions

Keep container tightly closed.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

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

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
7803-55-6	ammonium trioxovanadate			
	Worker DNEL, long-term	inhalation	systemic	0,64 mg/m ³
	Worker DNEL, long-term	inhalation	local	0,18 mg/m ³
	Worker DNEL, acute	inhalation	local	0,92 mg/m ³
	Consumer DNEL, long-term	inhalation	systemic	0,18 mg/m ³
	Consumer DNEL, long-term	inhalation	local	0,11 mg/m ³
	Consumer DNEL, acute	inhalation	local	0,57 mg/m ³
	Consumer DNEL, long-term	oral	systemic	0,18 mg/kg bw/day
	Consumer DNEL, acute	oral	systemic	0,92 mg/kg bw/day
7446-08-4	selenium dioxide			
	Worker DNEL, long-term	inhalation	systemic	0,07 mg/m ³
	Worker DNEL, long-term	dermal	systemic	9,8 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	0,021 mg/m ³
	Consumer DNEL, long-term	dermal	systemic	6,02 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	0,00602 mg/kg bw/day

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PNEC values

CAS No	Substance	Value
Environmental compartment		
7803-55-6	ammonium trioxovanadate	
Freshwater		0,0076 mg/l
Freshwater (intermittent releases)		0,00693 mg/l
Marine water		0,0025 mg/l
Freshwater sediment		240 mg/kg
Marine sediment		79 mg/kg
Secondary poisoning		0,167 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,45 mg/l
Soil		7,2 mg/kg
7446-08-4	selenium dioxide	
Freshwater		0,00374 mg/l
Freshwater (intermittent releases)		0,0077 mg/l
Marine water		0,0028 mg/l
Freshwater sediment		11,48 mg/kg
Marine sediment		8,68 mg/kg
Secondary poisoning		1,4 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,06 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.

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

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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.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

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:	like: Nitric acid	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		No data available
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		acidic
Viscosity / kinematic:		No data available
Water solubility:		completely miscible
Solubility in other solvents		
No data available		
Partition coefficient n-octanol/water:		No data available
Vapour pressure:		No data available
Vapour pressure:		No data available
Density:		1,067 g/cm ³
Bulk density:		No data available
Relative vapour density:		No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties	
No data available	
Sustaining combustion:	No data available
Self-ignition temperature	
Solid:	No data available

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Gas:	No data available
Oxidizing properties	
Oxidizing	
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.
Oxidising agent

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.
Amines, Ammonia, Alcohols, Alkali metals, Hydrogen peroxide
Copper, Combustible solids, Solvent, Alkaline earth metal, mercury (Hg).

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

In case of fire may be liberated:
SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Harmful if swallowed.
Harmful if inhaled.

ATEmix calculated

ATE (oral) 1654 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7697-37-2	nitric acid				
	inhalation vapour	ATE 2,65 mg/l			
7803-55-6	ammonium trioxovanadate				
	oral	LD50 218,1 mg/kg	Rat	Study report (1992)	OECD Guideline 401
	dermal	LD50 > 2500 mg/kg	Rat	Study report (1992)	OECD Guideline 402
	inhalation vapour	ATE 11 mg/l			
	inhalation (4 h) dust/mist	LC50 2,61 mg/l	Rat	Study report (1992)	OECD Guideline 403
13520-83-7	uranyl nitrate, hexahydrate				
	oral	ATE 5 mg/kg			
	inhalation vapour	ATE 0,5 mg/l			
	inhalation dust/mist	ATE 0,05 mg/l			
7446-08-4	selenium dioxide				
	oral	LD50 68,1 mg/kg	Rat	Indian Journal of Pharmacology 23(3):153	Method not specified GLP compliance: not
	inhalation vapour	ATE 3 mg/l			
	inhalation dust/mist	ATE 0,5 mg/l			
10102-45-1	thallium nitrate				
	oral	ATE 5 mg/kg			
	inhalation vapour	ATE 0,5 mg/l			
	inhalation dust/mist	ATE 0,05 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.

Following ingestion Gastric perforation

Irritating to respiratory system.

Pulmonary oedema

see also Section 4

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.

Specific effects in experiment on an animal

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

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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

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
7697-37-2	nitric acid					
	Acute fish toxicity	LC50 mg/l	1559	96 h	Topeka shiner	Environmental Toxicology and Chemistry, other: ASTM E729-26
	Fish toxicity	NOEC	268 mg/l	30 d	juvenile Topeka shiner and with juvenile Fathead m	Study report (2009) Growth tests estimated the test chemical
	Algae toxicity	NOEC	> 419 mg/l	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
7803-55-6	ammonium trioxovanadate					
	Acute fish toxicity	LC50 mg/l	3,17	96 h	Gasterosteus aculeatus	Environmental Toxicology 20:18-22. (2005) EPA OPPTS 850.1075
	Acute algae toxicity	ErC50 mg/l	2,907	72 h	Desmodesmus subspicatus	Study report (1999) OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	1,52	48 h	Daphnia magna	Study report (1978) 48h mortality test with daphnids
	Fish toxicity	NOEC mg/l	>= 0,48	28 d	Jordanella floridae	Water Research 13:905-910. (1979) Different groups of fish were continuous
	Crustacea toxicity	NOEC mg/l	1,344	23 d	Daphnia magna	Bulletin of Environmental Contamination other: 84/449/EEC: given by the Commissi
	Acute bacteria toxicity	EC50 mg/l ()	> 100	3 h	activated sludge of a predominantly domestic sewage	Study report (2010) OECD Guideline 209
7446-08-4	selenium dioxide					
	Acute fish toxicity	LC50	3,3 mg/l	96 h	Morone saxatilis	Publication (1992) other: ASTM methods for acute testing
	Acute algae toxicity	ErC50 mg/l	44,24	72 h	Pseudokirchneriella subcapitata	Study report (1992) OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	0,55	48 h	Daphnia magna	Environmental Toxicology and Chemistry 1 other: EPA-660/3-75-00 9: Methods for Acu
	Fish toxicity	NOEC mg/l	0,01	258 d	Lepomis macrochirus	Environmental Toxicology and Chemistry 1 Year long study investigating the effect
	Algae toxicity	NOEC mg/l	0,995	10 d	Anabaena flos-aquae	Archives of Environmental Contamination 10-d experiment on the toxicity of selen
	Crustacea toxicity	NOEC mg/l	0,07	28 d	Daphnia magna	Department of Entomology, Fisheries and OECD Guideline 211
	Acute bacteria toxicity	EC50 mg/l ()	> 3200	3 h	activated sludge of a predominantly domestic sewage	Study report (2012) OECD Guideline 209

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12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

BCF

CAS No	Chemical name	BCF	Species	Source
7803-55-6	ammonium trioxovanadate	< 0,036	Lactuca sativa	Study report (2003)
7446-08-4	selenium dioxide	755	periphyton	Environmental Pollut

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.

Further information

Do not allow to enter into surface water or drains.

Discharge into the environment must be avoided.

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.

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 2031
14.2. UN proper shipping name:	NITRIC ACID
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8
Classification code:	C1
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 2031
14.2. UN proper shipping name:	NITRIC ACID
14.3. Transport hazard class(es):	8
14.4. Packing group:	II

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Multielement-Standardlösung "4" 10 Elemente je 1000 mg/l in Salpetersäure 9%

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Hazard label: 8
 Classification code: C1
 Limited quantity: 1 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number or ID number: UN 2031
14.2. UN proper shipping name: NITRIC 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 2031
14.2. UN proper shipping name: NITRIC ACID
14.3. Transport hazard class(es): 8
14.4. Packing group: II
 Hazard label: 8
 Special Provisions: A212
 Limited quantity Passenger: Forbidden
 Passenger LQ: Forbidden
 Excepted quantity: E0
 IATA-packing instructions - Passenger: Forbidden
 IATA-max. quantity - Passenger: Forbidden
 IATA-packing instructions - Cargo: 855
 IATA-max. quantity - Cargo: 30 L

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 65, Entry 75

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: 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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Multielement-Standardlösung "4" 10 Elemente je 1000 mg/l in Salpetersäure 9%

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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
- Eye Irrit: Eye irritation
- Repr: Reproductive toxicity
- 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
Acute Tox. 4; H302	Calculation method
Acute Tox. 4; H332	
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.
- H300 Fatal if swallowed.
- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H302+H332 Harmful if swallowed or if inhaled.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H330 Fatal if inhaled.
- H331 Toxic if inhaled.
- H332 Harmful if inhaled.
- H361d Suspected of damaging the unborn child.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H373 May cause 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

Provide appropriate information, instructions and training to users
 The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.
 The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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