

Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser

Revision date: 13.12.2022

Product code: 34260

Page 1 of 12

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

1.1. Product identifier

Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser

UFI:

MDV1-D3VF-Q00Q-ERQH

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	For Hazardous Materials [or Danger	rous Goods] Incidents Spill, Leak, Fire,
number:	Exposure, or Accident Call CHEMTI	REC Day or Night Within USA and Canada:
	1-800-424-9300 Outside USA and 0	Canada: +1 703-741-5970 (collect calls
	accepted)	

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

Acute Tox. 3; H301 Acute Tox. 3; H331 Skin Irrit. 2; H315 Resp. Sens. 1; H334 Skin Sens. 1; H317 Muta. 2; H341 Carc. 1A; H350i Repr. 1B: H360D STOT RE 1; H372 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

nickel chloride hexahydrate Danger

Signal word:



Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser

Revision date: 13.12.2022

Pictograms:

Product code: 34260

Page 2 of 12





Hazard statements

H301+H331	Toxic if swallowed or if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H360D	May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Special labelling of certain mixtures

Restricted to professional users.

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	Chemical name			
	EC No	Index No	REACH No		
	Classification (GB CLP Regulation)				
7791-20-0	nickel chloride hexahydrate				
	231-743-0	028-011-00-6			
		Tox. 3, Acute Tox. 3, Skin Irrit. 2, Re tic Chronic 1; H350i H341 H360D H3			

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	
7791-20-0	231-743-0	nickel chloride hexahydrate	60 - < 65 %
	mg/kg Skin Irr		



according to UK REACH Regulation

Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser

Revision date: 13.12.2022

Product code: 34260

Page 3 of 12

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!

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. Call a physician immediately.

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

Irritant

Allergic reactions

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible liquids Hazardous combustion products In case of fire may be liberated: Hydrogen chloride (HCI) 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.



Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser

Revision date: 13.12.2022

Product code: 34260

Page 4 of 12

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Do not breathe vapour/aerosol.

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). Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

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. Use extractor hood (laboratory).

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.



according to UK REACH Regulation

Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser

Revision date: 13.12.2022

Product code: 34260

Page 5 of 12

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

Store in a place accessible by authorized persons only.

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

DNEL/DMEL values

CAS No	Substance						
DNEL type		Exposure route	Effect	Value			
7791-20-0	nickel chloride hexahydrate						
Worker DNEL,	acute	inhalation	systemic	104 mg/m³			
Worker DNEL,	acute	inhalation	local	1,6 mg/m³			
Consumer DN	EL, acute	inhalation	systemic	8,8 mg/m³			
Consumer DN	EL, acute	inhalation	local	0,1 mg/m³			
Consumer DNEL, long-term		oral	systemic	0,02 mg/kg bw/day			
Consumer DN	EL, acute	oral	systemic	0,012 mg/kg bw/day			

PNEC values

CAS No	Substance					
Environmental	Environmental compartment Value					
7791-20-0	nickel chloride hexahydrate					
Freshwater		0,0071 mg/l				
Freshwater (intermittent releases) 0 mg/l						
Marine water		0,0086 mg/l				
Freshwater sediment 109 mg/						
Marine sedime	109 mg/kg					
Secondary pois	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.

Individual protection measures, such as personal protective equipment



Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser

Revision date: 13.12.2022

Product code: 34260

Page 6 of 12

Eye/face protection

goggles

Wear eye/face protection.

Hand protection

Wear suitable gloves.

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

Thermal hazards

No data available

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

9.1. Information on basic physical and chei	mical properties	
Physical state:	Liquid	
Colour:	green	
Odour:	odourless	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and		No data available
boiling range:		
Flammability		
Solid/liquid:		No data available
Gas:		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:		1,8
Viscosity / kinematic:		No data available
Water solubility:		completely miscible
Solubility in other solvents		
No data available		
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:		1,4619 g/cm³
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



Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser						
Revision date: 13.12.2022	Product code: 34260	Page 7 of 12				
Sustaining combustion:	No data available					
Self-ignition temperature						
Solid:	No data available					
Gas:	No data available					
Oxidizing properties						
Oxidising agent						
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						
No data available						

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

No data available

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 GB CLP Regulation

Toxicocinetics, metabolism and distribution

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

Acute toxicity

Toxic if swallowed. Toxic if inhaled.

ATEmix calculated

ATE (oral) 163,7 mg/kg; ATE (inhalation vapour) 4,91 mg/l; ATE (inhalation dust/mist) 0,818 mg/l



according to UK REACH Regulation

Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser

Revision date: 13.12.2022

Product code: 34260

Page 8 of 12

CAS No	Chemical name							
	Exposure route	Dose		Species	Source	Method		
7791-20-0	nickel chloride hexahyo	nickel chloride hexahydrate						
	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

Causes skin irritation.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (nickel chloride hexahydrate) May cause an allergic skin reaction. (nickel chloride hexahydrate)

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing genetic defects. (nickel chloride hexahydrate) May cause cancer by inhalation. (nickel chloride hexahydrate) May damage the unborn child. (nickel chloride hexahydrate)

STOT-single exposure

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

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure. (nickel chloride hexahydrate)

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 preparation/mixture itself.

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

Endocrine disrupting properties

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

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.



according to UK REACH Regulation

Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser

Revision date: 13.12.2022

Product code: 34260

Page 9 of 12

CAS No	Chemical name							
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method	
7791-20-0	nickel chloride hexahydra	te						
	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 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
7791-20-0	nickel chloride hexahydrate	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 UK REACH.

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.



Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser

Revision date: 13.12.2022

Product code: 34260

Page 10 of 12

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 3287
14.2. UN proper shipping name:	TOXIC LIQUID, INORGANIC, N.O.S. (nickel chloride hexahydrate)
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1
Classification code:	Τ4
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	2
Hazard No:	60
Tunnel restriction code:	E
Inland waterways transport (ADN)	
14.1. UN number or ID number:	UN 3287
14.2. UN proper shipping name:	TOXIC LIQUID, INORGANIC, N.O.S. (nickel chloride hexahydrate)
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1
Classification code:	T4
Special Provisions:	274 802
Limited quantity:	5 L
Excepted quantity:	E1
Marine transport (IMDG)	
<u>14.1. UN number or ID number:</u>	UN 3287
	TOXIC LIQUID, INORGANIC, N.O.S. (nickel chloride hexahydrate)
14.2. UN proper shipping name:	6.1
14.3. Transport hazard class(es):	
14.4. Packing group:	
Hazard label:	6.1
Special Provisions:	223, 274
Limited quantity:	5 L
Excepted quantity: EmS:	
	F-A, S-A
Air transport (ICAO-TI/IATA-DGR)	
14.1. UN number or ID number:	UN 3287
14.2. UN proper shipping name:	TOXIC LIQUID, INORGANIC, N.O.S. (nickel chloride hexahydrate)
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	
Hazard label:	6.1
Special Provisions:	A3 A4 A137
Limited quantity Passenger:	2 L
Passenger LQ:	Y642
Excepted quantity:	E1
IATA-packing instructions - Passenger:	655
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	663 220 I
IATA-max. quantity - Cargo:	220 L



Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser			
Revision date: 13.12.2022	Product code: 34260	Page 11 of 12	
14.5. Environmental hazards			
ENVIRONMENTALLY HAZARDOUS:	Yes		
Danger releasing substance:	nickel chloride hexahydrate		
SECTION 15: Regulatory information			
15.1. Safety, health and environmental regul	ations/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):	E1 Hazardous to the Aquatic Environment		
National regulatory information			
Employment restrictions:	Observe restrictions to employment for juveniles according to the 'work protection guideline' (94/33/EC). Observe employment restrict under the Maternity Protection Directive (92/85/EEC) for expectan nursing mothers. Observe employment restrictions for women of child-bearing age.	ctions	
Water hazard class (D):	2 - obviously hazardous to water		

SECTION 16: Other information

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Acute Tox. 3; H301	Calculation method
Acute Tox. 3; H331	Calculation method
Skin Irrit. 2; H315	Calculation method
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method
Muta. 2; H341	Calculation method
Carc. 1A; H350i	Calculation method
Repr. 1B; H360D	Calculation method
STOT RE 1; H372	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H301+H331	Toxic if swallowed or if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
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.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our



according to UK REACH Regulation

Nickel(II)-chloridlösung 880 g/l zur Analyse in Wasser

Revision date: 13.12.2022

Product code: 34260

Page 12 of 12

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