

Safety Data Sheet

According to 1907/2006/EC, article 31

Version: 1

Revision: 17.01.2020
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Trade name:

Nickel Test

For professional application

1.2 Relevant identified uses of the substance/mixture and uses advised against

Application of the substance / the preparation / Test Reagent for Nickel

Uses advised against of the substance / the preparation -

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier

SK-Chemie Stefan Köhler
Vertrieb Chem.-Techn. Spezial-Produkte
Stefan Köhler
Bergweg 5
D-56340 Dachsenhausen

Phone: +49 (0) 6776 958 931
Telefax: +49 (0) 6776 958 932
E-Mail: info@skchemie.de
Webseite: http://www.skchemie.de

1.4 Emergency telephone number

Poison Info Center of the University Mainz
24 hours service. Languages: german/english

Phone: +49 (0) 6131 / 19240

1.5 Further informations obtainable from

SK-Chemie Stefan Köhler, Contact data see above

SECTION 2: Hazards information

2.1 Classification of the product/mixture according to Regulation (EC) No 1272/2006

Regulation (EC) No 1272/2008:
Skin Irrit. 2; H315, Eye Irrit. 2; H319

2.2 Labelling of the product/mixture according to Regulation (EC) No 1272/2006

Hazard pictograms:



GHS07

Signal word: ATTENTION
Hazard statements: H315 Causes skin irritation.
H319 Causes serious eye irritation

Precautionary statements:

P260 Do not breathe vapours.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

Results of PBT- and vPvB assesment
PBT: not applicable.
vPvB: not applicable.

SECTION 3: Composition/information on ingredients**3.1 Chemical characterization**

Mixture of substances listed below with nonhazardous additions.

3.2 Hazardous ingredients

Stoff:	EINECS:	CAS:	INDEX-No.:	REACH-No.:	Concentration:	Classification: EC 1272/2008(CLP):
Ammonia, aqueous solution	215-647-6	1336-21-6			< 3 %	Skin Corr. 1B; H314 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 STOT SE 3; H335

(Full text of H-phrases: see section 16.)

3.3 Additional informations

Contains no SVHC substances

Regulation (EC) No 648/2004 on detergents / Labelling for contents

Not applicable

SECTION 4: First aid measures**4.1 Description of first aid measures**

General informations Remove any clothing soiled by the product immediately.
After inhalation Ensure supply of fresh air. In case of respiratory arrest or irregular breathing artificial respiration or oxygen respiration and seek medical advice immediately.
In case of unconsciousness place and transport in stable side position.
After skin contact Remove any clothing soiled by the product immediately.
After eye contact Wash off with plenty of water. If skin irritation persists, consult a doctor.
After contact with the eyes, immediately rinse the open eyes 10 to 15 minutes under running water. Seek medical advice (oculist).
After swallowing Give water to drink in small sips (dilution effect). Do not induce vomiting. Seek medical advice.
Self protection First responders: take care of self-protection

4.2 Most important symptoms and effects, both acut and delayed

Symptoms: No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 General informations

Extinguishing measures in accordance to the surrounding conditions. To protect persons and to cool endangered containers using water spray. Remove undamaged containers from the danger zone if possible without risk.

5.2 Extinguishing media:

suitable: Water-spray, Carbon dioxide (CO₂), foam, extinguishing powder
Unsuitable: Water with full jet

5.3 Special hazards arising from the substance or mixture

Formation of explosive vapor / air mixture may be possible.
In case of fire may form: carbon oxides (CO, CO₂), nitrogen oxides (NO_x)

5.4 Advice for firefighters

Protective equipment

Wear full protective suit with self-contained breathing apparatus.

Additional informations

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Do not inhale vapors. Wear personal protective equipment. Remove persons to safety. Keep unprotected persons away. Keep ignition sources away. Do not smoke. Avoid sparks.

6.2 Environment precautions

Avoid penetration into drains, pits, cellars, water. Inform respective authorities in case of seepage into water courses or sewage system. Do not allow to enter sewers/surface or ground water.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, fused silica, acid-binder, universal-binder). Contaminated material has to be disposed as waste (see section 13). Clean contaminated surface thoroughly.

6.4 Referenco to other sections

See section 7 for information on safe handling
See section 8 for information on personal protection equipment
See section 13 for disposal information

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Keep containers/bottles tightly closed. Open and handle container with care. Ensure good ventilation/exhausting at the workplace. Do not breathe vapours/aerosols. Avoid contact with eyes and skin.

Technical measures

Ensure good ventilation / exhaustion at the stores and work areas.
Take measures to prevent electrostatic charging.

Information about fire- and explosion protections

Usual measures for preventive fire protection. Take measures to prevent electrostatic charging.

Additional information

None

7.2 Conditions for safe storage including any incompatibilities**Technical measures and conditions**

Ensure good ventilation. Keep container tightly closed and store in a cool, well-ventilated place. Keep away from direct sunlight and other heat and ignition sources.

Packaging materials

Keep containers/bottles tightly closed. Use original containers/bottles only.

Requirements to be met by storerooms and receptacles

Store in cool, dry conditions. Observe official regulations on storage and handling of water hazardous substances.

Information about storage in one common storage facility

Keep away from foodstuffs, beverages and feed. Away from sources of ignition and heat.

Further information about storage conditions

Attention should be paid to the guidelines of the VbF and the related technical regulations of the TRbF.

Storage class: 10 (flammable liquids but not in storage class 3)

7.3 Specific end use(s)

No further informations available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace****Occupational exposure limits:**

Substance:	CAS:	Origin:	Occupational exposure limit value	Peak:	Remarks:
Ammonia, aqueous solution	1336-21-6	GESTIS data base	Long-term value: 14 mg/m ³ , 20 ml/m ³	2, (I)	DFG, EU,Y

Common exposure limits:

Substance:	CAS:	Origin:	Occupational exposure limit value	Peak:	Remarks:
Ammonia, aqueous solution	7664-41-7	-	Short-term value: 36 mg/m ³ , 50 ml/m ³ Long-term value: 14 mg/m ³ , 20 ml/m ³	-	IOLEV (Europäische Union)

Additional information: The lists valid during the making were used as basis.

DNELs

1336-21-6 Ammonia, aqueous solution

Dermal	DNEL (worker)	6,8 mg/kg bw/day (Acute - systemic-effects)
Dermal	DNEL (worker)	6,8 mg/kg bw/day (Long-term - systemic-effects)
Inhalativ	DNEL (worker)	47,6 mg/m ³ (Acute - systemic-effects)
Inhalativ	DNEL (worker)	36 mg/m ³ (Acute - local-effects)
Inhalativ	DNEL (worker)	47,6 mg/m ³ (Long-term - systemic-effects)
Inhalativ	DNEL (worker)	14 mg/m ³ (Long-term - local-effects)

PNEC-Werte

1336-21-6 Ammonia, aqueous solution

PNEC aqua 0,165 mg/l (Süßwasser)

PNEC sediment 0,0165 mg/kg (Süßwasser)

PNEC soil 32,3 mg/kg (Boden)

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

General protective and hygiene measures

Technical measures and the application of suitable work processes should be given priority over the use of personal protective equipment.

The personal protective equipment must be defined depending on the quantities and concentration of hazardous substances in the workplace. (Risk assessment)

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and the end of work. Store protective clothing separately. Avoid contact with eyes and skin. Do not breathe vapours/aerosols.

Personal protective equipment

Minimum standards for protective measures when handling working substances are listed in TRGS 500.

Breathing equipment

With proper handling and continuously respected workplace exposure limits and other limits respiratory protection normally is not required.

Exceeding the minimum triggering level --> breathing filter apparatus

In case of brief exposure or low pollution use breathing filter apparatus. (Face mask according to DIN EN 136) with filter type K(P2) or combi-filter ABEK(P2)(according DIN EN 14387). In case of intensive or longer exposure use breathing apparatus that is independent of circulating air (according DIN EN 137).

Protection of hands

Chemical-resistant protective gloves (EN 374)

The glove material has to be impermeable and resistant to the product / the substance / the preparation.

Due to missing tests no recommendation to the glove material for the product / the preparation / the chemical mixture can be discharged. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Gloves made of the following materials are suitable (breakthrough time > = 8 hours):

Butyl rubber (0.5 mm)

Fluororubber - FKM (0.4 mm)

Eye protection

Tightly fitting safety glasses according DIN EN 166.

Body protection

Protective clothing in accordance with DIN EN 13688 : 2013. Chemical resistant safety shoes or boots according DIN EN 13832-1 : 2006. If skin contact is possible, wear impenetrable protective clothing against this substance according DIN EN 13034:2005.

Protective clothing in accordance with DIN EN 13688 : 2013. Chemical resistant safety shoes or boots according DIN EN 13832-1+2 : 2006.

Environmental exposure controls

see section 7. There are no further action is required.

Consumer exposure control

see section 7. There are no further action is required.

8.3 Exposure scenario

none

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Form: Liquid
Color: Colorless
Odour: Ammonia like

Safety relevant basic data

Parameter	Value	Unit	Remark
Density: at 20°C	approx. 0,96	g/cm ³	
pH: undiluted	approx. 11		
Melting point / -range:			No data available
Initial boiling point/boiling range			No data available
Flashpoint	75	°C	Value of the individual component
Ignition properties:			No data available
Upper ignition limits			No data available
Upper igniton limits			No data available
Explosiv properties			Product is not explosive. However, formation of explosive air/steam mixtures is possible.
Upper explosive limits	1,1	Vol.-%	Value of the individual component
Upper explosive limits	14,0	Vol.-%	Value of the individual component
Auto-ignition temperature			Products has no auto-ignition properties
Decomposition temperature			No data available
Oxidising properties			No oxidising properties
Vapour pressure			No data available
Vapour density			No data available
Evaporation rate			No data available
Solubility in water			completely miscible
Partition coefficient n-octanol/water			No data available
Viscosity:			No data available
Value of solvents: - organic solvents	approx. 90	%	

9.2 Additional information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No further relevant information available.

10.2 Chemical Stability

No decomposition if used according to the specifications.

10.3 Possibility of hazardous reactions

No further relevant information available.

10.4 Conditions to avoid

Heating, heat sources

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

In case of fire may form: carbon oxides (CO, CO₂), nitrogen oxides (NO_x)

10.7 Additional information

No further relevant information available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

No data available for the mixture.

Acute Toxicity

Substance:	CAS.:	Toxilogical ngaben
Ammonia, aqueous solution	1336-21-6	Acute Toxicity, oral LD50: 350 mg/kg (Rat) (OECD 401) Acute Toxicity, inhalativ LC50/2 h: 7,6 mg/l (Rat)

11.2 Primary irritant effect

On the skin

Causes skin irritations.

On the eye

Causes serious eye irritations.

After inhalation

Causes irritations on skin and mucous membrans.

11.3 Sensitisation

No sensitizing effects known.

11.4 Toxicity at repeated exposure

11.5 CMR-effects

Carcinogenity

No effects known.

Mutagenicity

No effects known.

Reproductiv toxicity

No effects known.

11.6 General remarks

No further relevant information available.

Practical experience

There is no information available.

Other observations

There is no information available.

Additional information

No further relevant information available.

SECTION 12: Ecological information

12.1 Information on toxicological effects

No data available for the mixture.

Ecotoxicity

Substance:	CAS:	Ecotoxicity
Ammonia, aqueous solution	1336-21-6	EC50/18d: 2700 mg/l [chlorella vulgaris] EC50/48h: 101 mg/l [Daphnia magna] LC50/96h: 0,16-1,1 mg/l [Oncorhynchus mykiss] LC50/96h: 0,068 mg/l [Oncorhynchus gorbuscha] NOEC/96h 0,79 mg/l [Daphnia magna]

Data is from the GESTIS substance database

12.2 Persistence and degradability

No further relevant information available

12.3 Bioaccumulative potential

No further relevant information available

12.4 Mobility in soil

No further relevant information available

12.5 Results of PBT- and vPvB-assessment

Not applicable

12.6 Other adverse effects

No further relevant information available.

12.7 Additional ecological information

Do not allow product to reach ground water, water bodies or sewage system.

12.8 Additional information

Water hazard class 1 (German Regulation)(Self-assessment): slightly hazardous for water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Chemicals must be disposed of in compliance with the respective national regulations.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Waste disposal key number

Since 01.01.1999 the waste code numbers have not only been product-related but are also essentially application-related. The valid waste code number of the application can be obtained from the European waste catalogue.

16 03 05* organic wastes containing hazardous substances

Uncleaned packagings

Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number

ADR, IMDG, IATA

no hazard goods according to the regulations

14.2 Proper shipping name

ADR: -

IMDG: -

IATA: -

14.3 Transport hazard class(es)

ADR:

Class: -

Label: -

IMDG, IATA:

Class: -

Label: -

14.4 Packaging group

ADR, IMDG, IATA: -

14.5 Environmental hazards

Product contains environmental hazards: -

Marine pollutant: no

Special marking (ADR): -

14.6 Special precautions for user

Warning: -

Danger code (Kemler): -

EMS-Number: -

Segregation groups: -

14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code

Not applicable

14.8 Additional information

ADR:

Limited quantities (LQ): -

Excepted quantities (EQ): -

IMDG:

Limited quantities (LQ): -

Excepted quantities (EQ): -

UN "Model Regulation": -

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU-Regulations****1999/13/EG on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations**

Not relevant

2037/2000/EG on Substances which damage the ozone layer

Not relevant

850/2004/EG on Persistent Organic Pollutants

Not relevant

689/2008/EG on the export and import of dangerous chemicals

Not relevant

648/2004/EG on detergents

See section 3, item 3.3

1907/2006/EG - Restrictions according title VIII of Regulation

Not relevant

2012/18/EU (Seveso-Directive)

Not relevant

National regulations

Must be observed

Storage class according VCI (German guideline)

Class 10 (flammable liquids not in storage class 3)

Substances of very high concern (SVHC) according REACH, Article 57

none

15.2 Information about limitation of use

Employment restrictions concerning young persons must be observed.

15.3 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other informations**16.1 Hazard statements under section 3**

Complete wording of hazard statements and risk phrases (H-phrases) mentioned in section 3.

These phrases refer to the constituents. The labelling for this product is stated in section 2.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

16.2 Training advice

Users of breathing apparatus must be instructed/trained.

16.3 Recommended restriction(s) of application

See section 1.

16.4 Additional information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

16.5 Replacement documentaion

First issue (Version 1)

16.6 Origin of datas

Information taken from reference works and literature as well as the instructions of the supplier.

16.7 Departement issuing MSDS

See section 1.5: SK-Chemie Stefan Köhler, Contact: Stefan Köhler

16.8 Abbreviations and acronymes

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
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
CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINECS: European List of Notified Chemical Substances
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
VCI: Verband der chemischen Industrie (German Chemical Industry Association, Germany)
VbF: Verordnung über brennbare Flüssigkeiten (Regulations for flammable liquids, Germany)
TRbF: Technische Regeln für brennbare Flüssigkeiten (Technical regulations for flammable liquids)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted no-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
SVHC: Substance of Very High Concern
PBT: **P**ersistent, **B**ioakkumulierend, **T**oxisch
vPvB: very Persistent and very Bioaccumulative
Skin Corr. 1B: Skin corrosive/irritation, Hazard Category 1B
Skin Irrit. 2: Skin corrosive/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT SE 3: Specific target organ toxicity – single exposure, Hazard Category 3
Aquatic Acute 1: Hazardous to the aquatic environment – Acute hazard, category 1
Aquatic Chronic 2: Hazardous to the aquatic environment – Chronic hazard, category 2

* Data compared to the previous issue altered.