

Safety data sheet

According to Regulation (EG) No 1907/2006 (REACH), amended by 2020/878/EU

Issue: 1.
(EU-GB)

Date of creation: 02.05.2024

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

1.1 Trade name:

Nickel Test

Art.-No.: 12226

UFI: N110-802C-600X-S5WJ

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

Application of the substance/the preparation: Detection reagent for nickel

Uses advised against of the substance / the preparation: -

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier

Köhler Special Chemicals
Vertrieb Chem.-Techn. Spezial-Produkte
Nils Köhler
Geranienstraße 1
D-76751 Jockgrim

Phone: +49 (0) 7271 9896365

E-Mail: koehler-special-chemicals@gmx.de

Website: <http://www.koehler-special-chemicals.de>

1.4 Emergency telephone number

This is an English-language document designed for the European region. For the emergency number and other country-specific data, please refer to the specific national versions of this safety data sheet.

Medical Emergency information in case of poisoning:

University Hospital Bonn, Poison Information Center - 24h - Phone: +49 (0) 228 19240 (advisory service in German language)

1.5 Further informations obtainable from

Köhler Special Chemicals, Contact datas see above

SECTION 2: Hazards information

2.1 Classification of the product/mixture according to Regulation (EC) No 1272/2008

Regulation (EC) No 1272/2008:

Skin Irrit. 2; H315 , Eye Irrit. 2; H319

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

Hazard pictograms:



GHS07

Signal word: Warning

Hazard H315 Causes skin irritation.

statements: H319 Causes serious eye irritation.

Precautionary P260 Do not breathe vapours.

statements:: 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.

Additional information: none

Hazardous ingredients for labelling: ammonia solution

2.3 Other hazards

Results of PBT- and vPvB-assesment

PBT: Not applicable

vPvB: Not applicable

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

ingredient:	EINECS:	CAS:	INDEX-No.:	REACH-No.:	Concentration:	Classificatio: EC 1272/2008(CLP):
Ammonia solution	215-647-6	1336-21-6			< 3%w/w	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

Does not contain SVHC substances

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 fresh air supply. Consult a doctor if symptoms persist. If breathing stops or is irregular, give artificial respiration or oxygen and call a doctor immediately. If unconscious, place and transport in the recovery position.

After skin contact: Remove clothing soiled with product immediately. Wash wetted areas with plenty of water. If skin irritation persists, consult a doctor.

After eye contact: In case of contact with eyes, rinse immediately with running water for 10 to 15 minutes holding eyelids apart. Then consult an ophthalmologist.

After ingestion: Drink water immediately in small sips (dilution effect). Do not induce vomiting. Consult a docotor immediately.

Self-protection: First aiders: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute 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 Extinguishing agents

suitable: Water spray jet, carbon dioxide (CO₂), foam, dry extinguishing agent

unsuitable: Full water jet

5.2 Indication of any immediate medical attention and special treatment needed

Formation of explosive vapour/air mixtures possible.

In event of fire, the following can be produced: Carbon oxides (CO, CO₂), nitrogen oxides (NO_x), Ammonia (NH₃)

5.3 Advice for firefighters

Special protective equipment for firefighting

In case of fire: Use self-contained breathing apparatus. Wear chemical protection suit.

Additional notes

Adapt extinguishing measures to the surroundings. Use a water spray jet to protect people and cool containers in the danger zone. If safely possible, remove undamaged containers from the danger zone. Collect contaminated extinguishing water separately. Do not allow to enter the sewerage system or bodies of water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Do not inhale vapours. Wear personal protective equipment. Move people 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 and watercourses. In the event of spillage into watercourses or drains, inform the relevant authorities immediately. If large quantities are released, inform the responsible authorities.

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 Reference to other sections

See section 5 for information on fire hazards of the substance or mixture

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. Take measures against electrostatic charging.

Note on fire and explosion protection

Standard fire prevention measures. Take measures against electrostatic charging.

Further information

none

7.2 Conditions for safe storage

Technical measures and storage conditions

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

Packaging materials

Keep/store only in the original container. Keep container tightly closed.

Requirements to be met by storerooms and receptacles

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

Information about storage in one common storage facility

Observe storage instructions.

Keep away from food, drink and animal feed.

Further information about storage conditions

Protect against external influences such as UV radiation/sunlight, air/oxygen ingress.

Recommended storage temperature: 15 - 25 °C

Storage class 10 (flammable liquids not in storage class 3)
(German TRGS 510):

7.3 Specific end uses

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace

Occupational exposure limits:

Country	Ingredient	CAS-No.	Identifier	TWA	STEL	Ceiling C	Note	Source.
EU	Ammonia anhydrous	7664-41-7	IOLEV	20 ml/m ³ 14mg/m ³	50 ml/m ³ 36 mg/m ³			2000/39/EG

Ceiling-C Ceiling value is a limit value above which exposure should not occur

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

DNEL-values

1336-21-6 Ammonia 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/m³ (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-values

1336-21-6 Ammonia solution

PNEC aqua 0,165 mg/l (fresh wasser)

PNEC sediment 0,0165 mg/kg (fresh wasser)

PNEC soil 32,3 mg/kg (soil)

Additional information: The information is based on the lists valid at the time of manufacture.

8.2 Exposure controls

General protective and hygiene measures

Technical measures and the use of suitable work procedures take precedence over the use of personal protective equipment.

Personal protective equipment must be determined according to the quantity and concentration of hazardous substances at the workplace. (Risk assessment)

Keep away from drinks, food and animal feed. Remove soiled, soaked clothing immediately. Wash hands before breaks and at the end of work. Store protective clothing separately. Avoid contact with eyes and skin. Do not inhale vapours.

Breathing equipment

No respiratory protection is normally required if the product is handled as intended and the occupational exposure limits and other limit values are safely observed at all times.

If the trigger threshold is exceeded → Respiratory filter device. For short-term or low exposure, respiratory filter device (face mask according to EN 136) with filter type K (P2) or combination filter ABEK (P2) (according to EN 14387).

For intensive or prolonged exposure, use self-contained breathing apparatus (in accordance with DIN EN 137).

Protection of hands

The gloves must comply with EN 374-3.

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 can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

Gloves of the following material are suitable for permanent contact (breakthrough time ≥ 8 hours):

Butyl rubber - Butyl (0,5 mm)

Fluoro rubber - FKM (0,4 mm)

Gloves of the following material are suitable for splash protection:

Nitrie rubber

Recommended material thickness > 0,4 mm, value for permeation: Level > 240 min

Eye protection

Tightly fitting safety glasses according EN 166.

Body protection

Personal protective equipment must be selected depending on the activity and possible exposure.

Protective work clothing in accordance with DIN EN 13688:2013. Chemical-resistant safety shoes or boots in accordance with DIN EN 13832-1:2006. If skin contact may occur, wear impermeable protective clothing for this product in accordance with DIN EN 13034:2005.

Environmental exposure controls

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
Colour: Colourless
Odour: Ammoniacal

Safety relevant basic data

Parameter	Value	Unit	Remark
Density: at 20°C	ca. 0,96	g/cm ³	
Bulk density:			not applicable
pH:	unverdünnt	ca. 11	
Melting point / -range::			No data available
Initial boiling point/boiling range:			No data available
Flashpoint:		75 °C	Value of component
Ignition properties:			No data available
Lower ignition limits			No data available
Upper ignition limits:			No data available
Explosiv properties:			Product is not explosive, but the formation of explosive vapours/air mixtures is possible
Lower explosive limits:	1,1	Vol.-%	Value of component
Upper explosive limits:	14,0	Vol.-%	Value of component
Auto-ignition temperature:			Product ist not self-igniting.
Decomposition temperature:			No data available
Oxidising properties:			Product is not oxidising.
Vapour pressure:			No data available
Relative vapour density:			No data available
Evaporation rate:			No data available
Solubility in water:			Fully miscible.
Solubility in water:			No data available
Solubility in			No data available
log P O/W (n-Octanol / Water):			No data available
Viscosity:			No data available
Solvent separation test:			No data available
Percentage of organic solvents:	ca. 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

The product is chemically stable.

10.3 Possible recations

No further relevant information available

10.4 Conditions to avoid

Heat, heat sources

10.5 Incompatible materials

No further relevant information available

10.6 Hazardous decomposition products

In case of fire, the following can be released: carbon monoxid (CO), carbon dioxides (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

Ingredient:	CAS-No.:	Toxicological information
Ammonia solution	1336-21-6	Acute Toxicity, oral LD50: 350 mg/kg (Rat) (OECD 401) Acute Toxicity, inhalative LC50/2 h: 7,6 mg/l (Rat)

Irritation and corrosivity

Irritant effect on the skin

Causes skin irritation

Irritant effect on the eye

Causes severe eye irritation

Irritant effect on the respiratory tract

No data available

Sensitisation

No sensitising effect known.

Specific target-organ toxicity

Single exposure – based on available data, the classification criteria are not met.

Repeated exposure – based on available data, the classification criteria are not met.

CMR effects

Carcinogenicity

No known carcinogenic effect.

Mutagenicity

No mutagenic effect known.

Reproductive toxicity

No repro-toxic effect known.

Aspiration hazard

Is not to be classified as an aspiration hazard.

Endocrine disrupting properties

Contains no endocrine disruptor (EDC) in a concentration of $\geq 0.1\%$.

11.2 General remarks

No further relevant information available.

SECTION 12: Ecological information

12.1 Information on toxicological effects

No data available for the mixture.

Ecotoxicity

Ingredient:	CAS-No.:	Ecotoxicity
Ammonia solution	1336-21-6	EC50/18d: 2700 mg/l (fresh water algae [chlorella vulgaris]) EC50/48h: 101 mg/l (large water flea [Daphnia magna]) LC50/96h: 0,16-1,1 mg/l (Rainbow trout [Oncorhynchus mykiss]) LC50/96h: 0,068 mg/l (Humpback salmon [Oncorhynchus gorbuscha]) NOEC/96h 0,79 mg/l (large water flea [Daphnia magna])

Data is from the GESTIS substance database

12.2 Persistence and degradability

No further relevant information available

12.3 Bioaccumulative potential

0 indication of bioaccumulation potential.

12.4 Mobility

No further relevant information available

12.5 Results of PBT- and vPvB-assessment

This substance does not meet the criteria as PBT or vPvB.

12.6 Endocrine disrupting properties

Contains no endocrine disruptor (EDC) in a concentration of $\geq 0.1\%$.

12.7 Further ecological information

Do not allow to enter drains or waterways. Do not allow to enter the subsoil/soil.

12.8 Other information

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment methods

Disposal in accordance with EC Directives 75/442/EEC and 91/689/EEC on waste and hazardous waste, as amended. Must not be disposed of together with household waste. Do not allow to enter the sewage system.

Proposal list for waste codes/waste designations according to AVV

Since 1.1.1999, the waste code numbers are not only product-related, but also essentially application-related.

The waste code numbers are assigned in accordance with the European Waste Catalogue (EWC) industry/process-specific

16 05 06* laboratory chemicals consisting of or containing dangerous substances, including mixtures of laboratory chemicals

Uncleaned packaging:

Dispose of in accordance with official regulations.

SECTION 14: Transport informations

O dangerous goods in the sense of the regulation

14.1 UN-Number

ADR, IMDG, IATA: --

14.2 UN proper shipping name

ADR / IMDG / IATA: not applicable

14.3 Transport hazard classes

ADR / IMDG / IATA: not applicable

14.4 Packaging group

ADR, IMDG, IATA: not applicable

14.5 Environmental hazards

Product contains environmental hazards: not applicable

Marine pollutant: no

Special labeling (ADR): -

14.6 Special precautions for user

none

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

not applicable

14.8 further information

UN "Model Regulation": not applicable

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 applicable

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

Not applicable

850/2004/EG on Persistent Organic Pollutants

Not applicable

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

Not applicable

648/2004/EG on detergents

not relevant

Directive 2012/18/EU (Seveso-Directive)

Named substances - Annex I: none of the ingredients is included.

Information on employment restrictions

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions in accordance with the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

National regulations

The national legal regulations must also be observed!

Major Accidents Ordinance

Not applicable.

Storage class according to VCI

10 (Flammable liquids if not in storage class 3)

Water hazard class according to VwVwS (administrative regulation for substances hazardous to water)

Hazardous to water (WGK 1) Self-assessment

Technical Instructions on Air Quality Control (TA-Luft)

NK proportion. 50-100 %

Other regulations, restrictions and prohibitions

None

Substances of Very High Concern (SVHC) according to REACH, Article 57

None

15.2 Stoffsicherheitsbeurteilung

A chemical safety assessment has not been carried out for this mixture.

Chemical safety assessments for substances in this mixture have not been carried out.

SECTION 16: Other informations

16.1 Hazard statements under section 3

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 Data sources

Data is taken from reference works and literature as well as the manufacturer's information from raw material suppliers.

16.3 Further information

The information is based on our current state of knowledge. However, it does not constitute a guarantee of product properties and does not establish a contractual legal relationship.

The information is intended to provide you with guidelines for the safe handling of the product mentioned in this safety data sheet during storage, processing, transport and disposal. The information is not transferable to other products. If the product is blended, mixed or processed with other materials or subjected to processing, the information in this safety data sheet cannot be transferred to the new material produced in this way, unless expressly stated otherwise.

16.4 Legend and explanation of terms

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)
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 changed compared to the previous version.