

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH), amended by 2020/878/EU

Issue: 1 (collective edition)
(EU-GB)

Date of creation: 13.03.2024

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

1.1 Trade name:

8 kt Goldprobiersäure/Test acid for Gold

(Art.-no. 12433), UFI: 9600-605D-400Y-5S2W

14 kt Goldprobiersäure/Test acid for Gold

(Art.-no. 12436), UFI: 5800-P0US-F00G-T3NY

18 kt Goldprobiersäure/Test acid for Gold

(Art.-no. 12437), UFI: WC00-60J5-R00Y-GF81

Restricted to professional users.

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

Application of the substance / the preparation	See trade name / according labelling under 1.1
Uses advised against of the substance / the preparation	Testing reagent for laboratory and precious metal trading Others than like trade name all ways of spraying applications

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier

Köhler Special Chemicals

Nils Köhler

Geranienstraße 1

D-76751 Jockgrim

Phone: +49 (0) 7271/9896365

e-mail: koehler-special-chemicals@gmx.de

Website: 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 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:

Met. Corr. 1, H290; Acut Tox. 3, H331; Skin Corr. 1A, H314; Eye Dam. 1, H318

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

Hazard pictograms:



GHS05, GHS06

Signal word:

Danger

Hazard statements:

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.

Precautionary statements:

P260 Do not breathe vapours.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+330+331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Additional information:

EUH071 Corrosive to the respiratory tract.

Hazardous ingredients for labelling:

Nitric acid

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

Hazardous components of the mixture

Ingredient	EINECS	CAS no	INDEX-No	REACH-No	Concentration	Classification: EC 1272/2008(CLP):
Nitric acid	231-714-2	7697-37-2	007-004-00-1	01-2119487297-23-xxxx	25 - 50 %	Ox. Liq. 2; H272 Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318 Acut Tox 3; H331

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

3.3 Additional informations

Contains no 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

Fresh air or oxygen; seek medical advice.

In case of unconsciousness place and transport in stable side position.

After skin contact

Remove any clothing soiled by the product immediately.

Wash off with plenty of water. Seek medical advice.

After eye contact

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). No administration in cases of unconsciousness or convulsions. 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: Corrosivity, gastric perforation, risk of serious eye damage

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

suitable: Water-spray, Carbon dioxid (CO₂), foam, extinguishing powder

Unsuitable: Water with full jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: Nitrogen oxides (NO_x).

5.3 Advice for firefighters

Protective equipement

Wear full protective suit with self-contained breathing apparatus.

Additional informations

Extinguishing measures in accordance to the surrounding conditions. The product itself does not burn.

To protect persons and to cool endangered containers using water spray. Remove undamaged containers from the danger zone if possible without risk. Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipement and emergency procedures

Ensure adequate ventilation. Wear protective equipment. Remove persons to safety. Keep away unprotected persons.

6.2 Enviroment precautions

Inform respective authorities in case of seepage into water coures 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 5 for information on fire hazards of the substance or mixture

See section 7 for information on safe handling

See section 8 for inormation on personal protection equipement

See section 13 for disposal infomation

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.

Notes on general hygiene at the workplace

Wash hands before breaks and at the end of work.

Additional information

None

7.2 Conditions for safe storage including any incompatibilities

Technical measures and conditions

Ensure good ventilation.

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

Observe storage instructions.

Keep away from flammable/combustible products.

Do not store together with alkalis (lyes).

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.

Keep away from sources of heat and warmth.

Prevent contamination from entering.

Recommended storage temperature: 15 - 25 °C

Storage class (German TRGS 510):

6.1 D (Non-flammable, acutely toxic Cat. 3 / toxic or chronically acting hazardous substances.)

7.3 Specific end use(s)

See directions for use.

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	Notation	Source
EU	Nitric Acid	7697-37-2	IOLEV		1 ml/m ³ 2,6 mg/m ³			2006/15/EG

Notation

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)

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

DNELs

7697-37-2 nitric acid

Inhalative DNEL (worker) 2,6 mg/m³ (Acute - local-effects)

DNEL (worker) 2,6 mg/m³ (Long-term - local-effects)

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.

Breathing equipment

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 EN 136) with filter type ABEK(P2) (EN 14387). In case of intensive or longer exposure use breathing apparatus that is independent of circulating air (according 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

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

Gloves for the permanent contact are suitable of the following materials:

Recommended thickness: ≥ 0.7 mm Fluorocarbon rubber (Viton), Value for the permeation: Level ≥ 480 min

As protection from splashes gloves made of the following materials are suitable:

Recommended thickness: ≥ 0.6 mm Natural rubber (latex), Value for the permeation: Level ≥ 120 min

Further protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Eye protection

Tightly fitting safety glasses according EN 166.

Body protection

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

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

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
Color: Colourless – yellowish, clear
Odour: pungent

Safety relevant basic data

	Parameter	Value	Unit	Remark
Density:	at 20°C	1,17 - 1,37	g/cm ³	
pH:	undiluted	< 2		
Melting point / -range:				No data available
Initial boiling point/boiling range		approx. 118	°C	literature value for nitric acid 53 %
Flashpoint				not applicable
Ignition properties				not applicable
Lower ignition limits				not applicable
Upper ignition limits				not applicable
Explosiv properties				not explosive
Lower explosive limits				not applicable
Upper explosive limits				not applicable
Auto-ignition temperature				not applicable
Decomposition temperature				No data available
Oxidising properties				No data available
Vapour pressure	at 20°C	approx. 10	hPa	literature value for nitric acid 53 %
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

9.2 Additional information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Reaction with: Alkalis

10.2 Chemical Stability

No decomposition if used according to the specifications.

10.3 Possibility of hazardous reactions

Reaction with: Alkalis
Reacts with metals forming hydrogen.

10.4 Conditions to avoid

UV rays/sunlight. Store away from heat.

10.5 Incompatible materials

Hazardous decomposition on contact with incompatible substances such as alkalis, (light) metals (release of flammable hydrogen on contact with metals).

10.6 Hazardous decomposition products

In case of fire, the following can be released: 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

Toxic if inhaled

Acute toxicity estimate (ATE) of components of the mixture

Ingredient	CAS-No	Exposure route	ATE
Nitric Acid	7697-37-2	inhalation: vapour	2,65 mg/l 4h

Acute toxicity of components of the mixture

Ingredient	CAS-Nr.:	Exposure route
Nitric Acid	7697-37-2	Acute toxicity, inhalation: vapour LC50/4 h: > 2,65 mg/l (rat) (OECD 403)

Primary irritant effect

On the skin

Causes severe skin burns and eye damage.

On the eye

Causes serious eye damage.

After inhalation

Corrosive to the respiratory tract.

Sensitisation

No sensitizing effects known.

Specific target-organ toxicity

Single exposure – May irritate the respiratory tract.

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

Aspiration hazard

Is not to be classified as an aspiration hazard.

CMR-effects

Carcinogenicity

No effects known.

Mutagenicity

No effects known.

Reproductive toxicity

No effects known.

Endocriens

No ingredient is listed.

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
Nitric acid	7697-37-2	Acute toxicity to crustacea LC50: 180 mg/l/48 h [Crangon crangon.]

Data is from the GESTIS substance database

12.2 Persistence and degradability

Methods of the determination of biodegradability are not applicable on inorganic substances.

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

Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.

12.6 Endocrins

No ingredient is listed.

12.7 Additional ecological information

Do not allow product to reach ground water, water bodies or sewage system. Does not cause biological oxygen deficit. Harmful effect due to pH shift.

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.

Small quantities can be fed into the waste water treatment after neutralisation (e.g. with "Neutralizer with colour indicator", manufactured by Köhler Special Chemicals).

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.

The allocation of waste code numbers is carried out according to the European Waste Catalogue (EWC) industry-/process-specific.

Our suggestion: 20 01 14* acids

Packagings

After complete emptying and cleaning, the bottles can be recycled.

Uncleaned packagings

Disposal must be made according to official regulations.

SECTION 14: Transport informations

14.1 UN-Number

ADR, IMDG, ICAO-TI: UN 3264

14.2 Proper shipping name

ADR: 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

ICAO-TI: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

14.3 Transport hazard class(es)

ADR:

Class: 8 (C1) Corrosive substances

Label: 8

IMDG, ICAO-TI:

Class: 8 Corrosive substances

Label: 8

14.4 Packaging group

ADR, IMDG, ICAO-TI: II

14.5 Environmental hazards

Product contains environmental hazards: -

Marine pollutant: no

Special marking (ADR): -

14.6 Special precautions for user

Warning: corrosive substances

Danger code (Kemler): 80

EMS-Number: F-A, S-B

Segregation groups: Acids

Stowage category: B-SW2

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): 1 L

Excepted quantities (EQ): Code E2

Maximum quantity per inner packaging: 30 ml

Maximum quantity per outer packaging: 500 ml

Transport category (TC): 2

Tunnel restriction code (TRC): E

IMDG:

Limited quantities (LQ): 1 L

Excepted quantities (EQ): Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation": UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, II, (E)

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

Not relevant

1148/2019/EU on the marketing and use of explosives precursors

Distribution restrictions and conditions must be observed. No distribution to private persons.

2012/18/EU - Restrictions according title VIII of Regulation

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

Seveso Categorie: H2 akute toxic

Qualifying Quantity for the application in lower-tier establishments: 50 tons

Qualifying Quantity for the application in upper-tier establishments: 200 tons

1907/2006/EG - Annex XVII

Conditions of restriction: 3, 75 (applies to individual components of the mixture)

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

No ingredient is listed.

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.

Other regulations, restrictions and prohibitions

For professional users only.

National regulations

Must be observed

15.2 Chemical Safety Assessment

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

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.

H272 May intensify fire; oxidiser.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

16.2 Origin of datas

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

16.3 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.

16.4 Abbreviations and acronyms

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)
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: Persistent, Bioakkumulierend, Toxisch
vPvB: very Persistent and very Bioaccumulative
Ox. Liq. 3: Oxidising Liquids, Hazard Category 3
Met. Corr. 1: Corrosive to metals, Hazard Category 1
Skin Corr. 1A: Skin corrosive/irritation, Hazard Category 1A
Acute Tox. 3: Acute toxicity, Hazard Category 3
STOT SE 3, Specific target organ toxicity (single exposure), Hazard Category 3

* Data compared to the previous issue altered.

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH), amended by 2020/878/EU

Issue: 1
(EU-GB)

Date of creation: 13.03.2024

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

1.1 Trade name:

Kontrastol

Art-no: 12449

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

Application of the substance / the preparation Care product for touchstones

Uses advised against of the substance / the preparation All spraying applications

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier

Köhler Special Chemicals

Nils Köhler

Geranienstraße 1

D-76751 Jockgrim

Phone: +49 (0) 7271/9896365

e-mail: koehler-special-chemicals@gmx.de

Website: 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 information obtainable from

Köhler-Special-Chemicals, 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:

No classification/labelling according to the guideline

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

Hazard pictograms:

Signal word: -

Hazard -

statements:

Precautionary -

statements:

Additional -

information:

Hazardous -

ingredients for

labelling:

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

Hazardous components of the mixture

Stoff:	EINECS:	CAS:	INDEX-No.:	REACH-No.:	Concentration:	Classification: EC 1272/2008(CLP):
White mineraloil	232-455-8	8042-47-5			> 50 %	-

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

3.3 Additional informations

Contains no SVHC substances

SECTION 4: First aid measures

4.1 Description of first aid measures

General informations No special measures required.

In case of unconscious, place and transport in stable side position.

After inhalation

Fresh air or oxygen; seek medical advice. In case of respiratory arrest or breathing irregularity 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.

Wash off with water and soap.

After eye contact

After contact with the eyes, immediately rinse the open eyes 10 to 15 minutes under running water. Seek medical advice (oculist) if necessary.

After swallowing

Do not induce vomiting. Seek medical advice. In case of unconscious, place and transport in stable side position. Seek medical advice immediately.

Self protection

For accidents after swallowing it can be dangerous for First responders to give mouth-to-mouth resuscitation.

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 Extinguishing media:

suitable: Water-spray, Carbon dioxid (CO₂), foam, extinguishing powder

Unsuitable: Water with full jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: Carbon oxides (CO, CO₂).

5.3 Advice for firefighters

Protective equipment

Wear full protective suit with self-contained breathing apparatus.

Additional 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Wear protective equipment. Remove persons to safety. Keep away unprotected persons. Contaminated surfaces become slippery and therefore do not run through leaked material.

6.2 Environment precautions

Inform respective authorities in case of seepage into water courses or sewage system. Do not allow to enter sewers/surface or ground water/ground or subsoil. Prevent from spreading (e.g. by damming-in or oil barriers).

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, fused silica, 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 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. The usual good standards of industrial hygiene should be maintained. Avoid contact with eyes and skin.

Technical measures

Avoid misting.

Notes on general hygiene at the workplace

Wash hands before breaks and at the end of work.

Additional information

None

7.2 Conditions for safe storage including any incompatibilities

Technical measures and conditions

Ensure good ventilation.

Packaging materials

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

Requirements to be met by storerooms and receptacles

Observe official regulations on storage and handling of water hazardous substances.

Information about storage in one common storage facility

Keep away from strong oxidising materials.

Further information about storage conditions

No further relevant information available.

Storage class: 10 (Flammable liquids unless the Storage Class 3) (German guideline)

7.3 Specific end use(s)

See directions for use.

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:
-	-	-	-	-	-

Common exposure limits:

Substance:	CAS:	Origin:	Occupational exposure limit value	Peak:	Remarks:
-	-	-	-	-	-

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

DNELs

8042-47-5 white mineral oil

Inhalativ-Aerosol DNEL (worker) 160 mg/m³/8h (Long-term; systemic-effects)

Dermal DNEL (worker) 220 mg/kg/8h (long term; systemic-effects)

8.2 Exposure controls

General protective and hygiene measures

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and the end of work. Avoid contact with eyes and skin.

Personal protective equipment

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

Breathing equipment

There is no oil mist/aerosol formation during normal handling of Kontrastol. Therefore no respiratory protection is required. Respiratory protection is required in the event of accidents or unintentional oil mist/aerosol formation. Respiratory filter device (face mask according to EN 136) with filter A (against organic gases with boiling point > 65 °C, identification colour: brown) (according to EN 14387).

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

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

be observed.

Gloves for the permanent contact are suitable of the following materials:

Recommended thickness: ≥ 0.7 mm Fluorocarbon rubber (Viton), ≥ 0.5 mm Polyvinylchloride (PVC)

Value for the permeation: Level ≥ 480 min

Not suitable: Natural rubber (latex)

Further protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Eye protection

Safety glasses recommended during decanting/refilling according EN 166.

Body protection

When handling large quantities of oil, wear oil-resistant protective clothing

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

Color: colourless, clear

Odour: none

Safety relevant basic data

	Parameter	Value	Unit	Remark
Density:	at °C: 20	approx. 0,85	g/cm ³	
pH:				not applicable
Melting point / -range:				No data available
Initial boiling point/boiling range				No data available
Flashpoint		> 100	°C	
Ignition properties:				not applicable
Upper ignition limits				not applicable
Upper igniton limits				not applicable
Explosiv properties				not explosive
Upper explosive limits				No data available
Upper explosive limits				No data available
Auto-ignition temperature				not applicable
Decomposition temperature				No data available
Oxidising properties				No data available
Vapour pressure				No data available
Vapour density				No data available
Evaporation rate				No data available
Solubility in water				not miscible
Partition coefficient				No data available
n-octanol/water				
Viscosity:	40°C	> 20,5	cst	Kinematic viscosity
Value of solvents:				
- organic solvents				0,0 %

9.2 Additional information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Product is inert

10.2 Chemical Stability

Product is stable

10.3 Possibility of hazardous reactions

No further relevant information available.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

In case of fire, the following can be released: Carbon oxides (CO, CO₂).

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.:	Toxicological ngaben
White mineraloil	8012-95-1	Oral LD50 > 5000mg/kg (rat) Dermal LD50 >2000 mg/kg (rabbit) Inhalative LC50/4h >5000 mg/m ³ (Aerosol) (rat)

Primary irritant effect

On the skin

No irritation on skin and mucous membrans.

On the eye

No irritation on eyes.

After inhalation

No irritation under normal conditions.

Sensitisation

No sensitizing effects known.

Specific target-organ toxicity (STOT)

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

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

Aspiration hazard

Is not to be classified as an aspiration hazard.

CMR-effects

Carcinogenity

No effects known.

Mutagenicity

No effects known.

Reproductiv toxicity

No effects known.

Endocriens

No ingredient is listed.

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.

Acute aquatic toxicity

Substance:	CAS:	Ecotoxicity
White mineral oil	8042-47-5	EL50 (48h) > 100 mg/l (Pseudokirchnerella subcapitata) (OECD 201) EL50 (48h) > 100 mg/l (Daphnia magna) (OECD 0202) LL50 (96h) > 100 mg/l (Oncorhynchus mykiss) (OECD 0203)

Chronic aquatic toxicity

Substance:	CAS:	Ecotoxicity
White mineral oil	8042-47-5	NOEL (21d) 10 mg/l (Daphnia magna) (OECD 0211) NOEL (21d) > 1000 mg/l (Fisch (Oncorhynchus mykiss))

12.2 Persistence and degradability

No relevant information available.

12.3 Bioaccumulative potential

No indication of bioaccumulation potential.

12.4 Mobility in soil

No relevant information available.

12.5 Results of PBT- and vPvB-assessment

Not applicable

12.6 Endocriens

No ingredient is listed.

12.7 Additional ecological information

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

12.8 Additional information

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommondation

Chemicals must be disposed of in compliance with the respectiv 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.

13 00 00 OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19)

13 08 oil wastes not otherwise specified

Uncleaned packagings

Disposal must be made according to official regulations.

SECTION 14: Transport informations

No hazardous goods according to the regulations

14.1 UN-Number

ADR, IMDG, ICAO-TI: -

14.2 Proper shipping name

ADR: -

IMDG: -

ICAO-TI: -

14.3 Transport hazard class(es)

ADR:

Class: -

Label: -

IMDG, ICAO-TI:

Class: -

Label: -

14.4 Packaging group

ADR, IMDG, ICAO-TI: -

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): -

Transport category (TC): -

Tunnel restriction code (TRC): -

IMDG:

Limited quantities (LQ): -

Excepted quantities (EQ): -

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

Not relevant

1148/2019/EG on the marketing and use of explosives precursors

Not relevant

2012/18/EU - Restrictions according title VIII of Regulation

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

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

none of the ingredients is listed

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

none of the ingredients is listed

Notes on employment restriction

Observe employment restrictions for young people according to Directive 94/33/EC and the corresponding national regulations.

Other regulations, restrictions and prohibitions

No further informations available

National regulations

Must be observed

Storage class according VCI (German guideline)

Class 10 (Flammable liquids unless the Storage Class 3)

15.2 Chemical Safety Assessment

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

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.

16.2 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.

16.3 Origin of datas

Information taken from reference works and literature as well as the manufacturer's instructions.

16.4 Abbreviations and acronyms

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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted no-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

LL50 : = LC50

SVHC: Substance of Very High Concern

PBT: **P**ersistent, **B**ioakkumulierend, **T**oxisch

vPvB: very Persistent and very Bioaccumulative

* Data compared to the previous issue altered.

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH), amended by 2020/878/EU

Issue: 1

Revision: 13.03.2024
(EU-GB)

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

1.1 Trade name:

Silberprobiersäure/Test acid for Silver

Art.-No.12235, UFI: 0S00-R005-900F-S55C

Restricted to professional users

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

Application of the substance / the preparation	See trade name / according labelling under 1.1 Testing reagent for laboratory and precious metal trading
Uses advised against of the substance / the preparation	others all ways of spraying applications

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier

Köhler Special Chemicals
Nils Köhler
Geranienstraße 1
D-76751 Jockgrim

Phone: +49 (0) 7271/9896365

e-mail: koehler-special-chemicals@gmx.de

Website: 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 1272/2006

Regulation (EC) No 1272/2008:

Ox. Liq. 3; H272, Met. Corr. 1; H290, Carc. 1B; H350, Muta 1B; H340, Repr. Cat. 1B; H360FD, Acute Tox. 3; H331, Acute Tox. 4; H302, STOT RE 1; H372, Skin Corr. 1A; H314, Eye Dam. 1; H318, Resp. Sens. 1; H334, Stot. SE 3; H335, Aquatic Chronic. 1; H410

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

Hazard pictograms:



GHS03, GHS05, GHS06, GHS08, GHS09

Signal word: Danger

Hazard statements:

- H272 May intensify fire; oxidiser.
- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H331 Toxic if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements:	<p>H335 May cause respiratory irritation. H340 May cause genetic defects. H350 May cause cancer H360FD May damage fertility or the unborn child H372 Causes damage to organs through prolonged or repeated exposure H410 Very toxic to aquatic life with long lasting effects. P201 Obtain special instructions before use. P260 Do not breathe vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301+330+331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P304+341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.. P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.. P308+313 IF exposed or concerned: Get medical advice/attention. P501 Dispose of contents/container in accordance to local/regional/national/international regulations. EUH071 Corrosive to the respiratory tract.</p>
Additional information:	
Hazardous ingredients for labelling:	Nitric acid, potassium dichromate

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

Hazardous components of the mixture

Ingredient:	EINECS:	CAS no.:	INDEX-no.:	REACH-no.:	Concentration:	Classification: EC 1272/2008(CLP):
Nitric acid	231-714-2	7697-37-2	007-004-00-1	01-2119487297-23-xxxx	25 - 50 %	Ox. Liq. 3; H272 Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318 Acut Tox 3; H331
Potassium dichromate	231-906-6	7778-50-9	024-002-00-6		2,5 – 10 %	Carc. 1B; H350 Muta 1B; H340 Repr. 1B; H360FD Ox. Sol. 2; H272 Acute Tox. 4; H312 Acute Tox. 3; H301 Acute Tox. 2; H330 Skin Corr. 1B; H314 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT RE 1; H372 Aquatic Acute 1; H400 Aquatic Chronic. 1; H410

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

3.3 Additional informations

SVHC: 7778-50-9 potassium dichromat

SECTION 4: First aid measures

4.1 Description of first aid measures

General informations	Remove any clothing soiled by the product immediately. Symptoms of poisoning may occur after several hours; therefore medical observation for at least 48 hours after the accident. Remove breathing equipment only after removing contaminated clothing. In case of irregular breathing or respiratory arrest provide artificial respiration. In case of unconsciousness place and transport in stable side position.
After inhalation	Fresh air or oxygen; seek medical advice. In case of unconsciousness place and transport in stable side position.
After skin contact	Remove any clothing soiled by the product immediately. Wash off with plenty of water. Seek medical advice.
After eye contact	After contact with the eyes, immediately rinse the open eyes 10 to 15 minutes under running water. Seek medical advice (oculist).
After swallowing	Immediately rinse the mouth with water for several times without swallowing the water. Then let drink plenty of water. No administration in cases of unconsciousness or convulsions. Do not induce vomiting. Seek medical advice.
Self protection	First responders: take care of self-protection

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Breathing difficulties, allergic reactions

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

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

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: Nitrogen oxides (NO_x).
May have a fire-promoting effect due to release of oxygen.

5.3 Advice for firefighters

Protective equipment

Wear full protective suit with self-contained breathing apparatus.

Additional informations

Extinguishing measures in accordance to the surrounding conditions. The product itself does not burn.
To protect persons and to cool endangered containers using water spray. Remove undamaged containers from the danger zone if possible without risk. 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. Wear protective equipment. Remove persons to safety. Keep away unprotected persons.

6.2 Environment precautions

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). Avoid generations of dusts. Clean contaminated surface thoroughly. Ensure adequate ventilation.

6.4 Referenco 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 inormation on personal protection equipement

See section 13 for disposal infomation

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Store locked up. 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.

Notes on general hygiene at the workplace

Wash hands before breaks and at the end of work.

Additional information

None

7.2 Conditions for safe storage including any incompatibilities

Technical measures and conditions

Ensure good ventilation.

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 harzardous substances.

Information about storage in one common storage facility

Observe storage instructions.

Keep away from flammable/combustible products.

Do not store together with alkalis (lyes).

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.

Keep away from sources of heat and warmth.

Prevent contamination from entering.

Recommended storage temperature: 15 - 25 °C

Storage class: 6.1 B non flammable, toxic subsances (TRGS 510 German guideline)

7.3 Specific end use(s)

No further information available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace

Common exposure limits:

Country	Ingredient	CAS-No.	Identifier	TWA	STEL	Ceiling C	Notation	Source
EU	Nitric Acid	7697-37-2	IOLEV		1 ml/m ³ 2,6 mg/m ³			2006/15/EG
EU	chromium(VI) compounds	7778-50-9	IOLEV	0,005 mg/m ³			Cr, CrVI-limit	2017/2398/EU

Notation

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

Cr Calculated as Cr (chromium)

CrVI-limit Limit value 0,010 mg/m³ until 17 January 2025 Limit value: 0,025 mg/m³ for welding or plasma cutting processes or similar work processes that generate fume until 17 January 2025

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)

DNELs

7697-37-2 Nitric acid

Inhalative DNEL (worker) 2,6 mg/m³ (Acute - local-effects)

DNEL (worker) 2,6 mg/m³ (Long-term - local-effects)

7778-50-9 Potassium dichromate

Inhalative DNEL (worker) 0,028 mg/m³ (Long-term-local-effects)

PNECs

7778-50-9 Potassium dichromate

0,21 mg/l (sewage treatment plant(STP))

Aqua 0 mg/l (fresh water)

Sediment 0,15 mg/kg (fresh water)

Sediment 0,15 mg/kg (marine water)

Soil 0,035 mg/kg

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

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.

Breathing equipment

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 EN 136) with filter type ABEK(P2) (EN 14387). In case of intensive or longer exposure use breathing apparatus that is independent of circulating air (according 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

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Gloves made of the following materials are suitable for permanent contact:

Recommended material thickness: ≥ 0.7 mm fluororubber (Viton), value for permeation: Level ≥ 480 min or

Recommended material thickness: ≥ 0.5 mm butyl rubber, value for permeation: level ≥ 480 min

Gloves made of the following materials are suitable for splash protection:

Recommended material thickness: ≥ 0.6 mm natural rubber (latex), value for permeation: level ≥ 120 min.

Further protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Eye protection

Tightly fitting safety glasses according EN 166.

Body protection

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

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

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
Color: orange clear
Odour: pungent

Safety relevant basic data

	Parameter	Value	Unit	Remark
Density:	at 20°C	approx. 1,3	g/cm ³	
pH:	undiluted	< 2		
Melting point / -range:				No data available
Initial boiling point/boiling range		118	°C	literature value for nitric acid 53 %
Flashpoint				not applicable
Ignition properties:				not applicable
Upper ignition limits				not applicable
Upper igniton limits				not applicable
Explosiv properties				not explosive

Upper explosive limits			not applicable
Upper explosive limits			not applicable
Auto-ignition temperature			not applicable
Decomposition temperature			No data available
Oxidising properties			oxidising
Vapour pressure	at 20°C	approx. hPa	literature value for nitric acid
		118	53 %
Vapour density			No data available
Evaporation rate			No data available
Solubility in water			completely miscible
Partition coefficient			No data available
n-octanol/water			
Viscosity:			No data available

9.2 Additional information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Reaction with: Alkalis, reduction agents

10.2 Chemical Stability

No decomposition if used according to the specifications .

10.3 Possibility of hazardous reactions

Reaction with: Alkalis, reduction agents

Reacts with metals forming hydrogen.

10.4 Conditions to avoid

UV rays/sunlight. Store away from heat.

10.5 Incompatible materials

Hazardous decomposition on contact with incompatible substances such as alkalis, (light) metals (release of flammable hydrogen on contact with metals).

10.6 Hazardous decomposition products

In case of fire, the following can be released: 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

Toxic if inhaled

Acute toxicity estimate (ATE) of components of the mixture

Ingredient	CAS-No	Exposure route	ATE
Nitric Acid	7697-37-2	inhalation: vapour	2,65 mg/l 4h

Acute toxicity of components of the mixture

Ingredient	CAS-No	Toxikologische Angaben
Nitric Acid	7697-37-2	Acute toxicity, inhalation: vapour LC50/4 h: > 2,65 mg/l (rat) (OECD 403)
Potassium dichromat	7778-50-9	Acute toxicity oral LD50: 67 mg/kg (rat) (ECHA) Acute toxicity, dermal LD50: < 2000 mg/kg (rabbit) (ECHA) Acute toxicity, inhalation dust/misz LD50: 83 mg/m ³ /4h (rat) (ECHA)

Primary irritant effect

On the skin

Causes severe skin burns and eye damage.

On the eye

Causes serious eye damage.

After inhalation

Corrosive to the respiratory tract.

Sensitisation

Sensitization possible by inhalation.

Sensitization possible by skin contact.

Specific target-organ toxicity

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

Repeated exposure - damages the organs in case of prolonged or repeated exposure.
(K-dichromate).

Aspiration hazard

Is not to be classified as an aspiration hazard.

CMR-effects

Carcinogenicity

May cause cancer.

Mutagenicity

May cause genetic defects.

Reproductive toxicity

May damage fertility or the unborn child.

Endocriens

No ingredient is listed.

11.2 General remarks

Even at a poisoning suspected medical examination is required.

SECTION 12: Ecological information

12.1 Information on toxicological effects

No data available for the mixture.

Ecotoxicity

Substance:	CAS:	Ecotoxicity
Nitric acid	7697-37-2	Acute toxicity to crustacea LC50: 180 mg/l/48 h [Crangon crangon.]
Potassium dichromate	7778-50-9	Acute Fish toxicity LC50: 51,1 mg/l/96 h [Pimephales promelas.] Acute Fish toxicity LC50: 51,1 mg/l/96 h [Carassius auratus.] Acute Daphnientoxicity LC50: 7,18 mg/l/48 h [Daphnia magna.] Acute Daphnientoxicity EC50: 0,12 mg/l/48 h [Daphnia magna.] Toxicity to algae EC 50: 0,61 mg/l/72 h Toxicity to algae EC 50: 0,6 mg/l/96 h [Gracilaria tenuistipitata.]

Data is from the GESTIS substance database

12.2 Persistence and degradability

Methods of the determination of biodegradability are not applicable on inorganic substances.

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 Endocrins

No ingredient is listed.

12.7 Additional ecological information

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Toxic for fish.

12.8 Additional information

Water hazard class 3 (German regulation) (Self-assessment): extremely 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.

Our suggestion:

06 01 06* other acids

or

16 05 07* discarded inorganic chemicals consisting of or containing hazardous substances.

Uncleaned packagings

Disposal must be made according to official regulations. (Hand in at collection point for hazardous substances)

SECTION 14: Transport informations

14.1 UN-Number

ADR, IMDG, ICAO-TI: UN 2922

14.2 Proper shipping name

ADR: 2922 CORROSIV LIQUID, TOXIC, N.O.S. (NITRIC ACID, potassium dichromate)

ENVIROMENTALLY HAZARDOUS

IMDG: CORROSIV LIQUID, TOXIC, N.O.S. (NITRIC ACID, potassium dichromate), MARINE POLLUTANT

ICAO-TI: CORROSIV LIQUID, TOXIC, N.O.S. (NITRIC ACID, potassium dichromate),

14.3 Transport hazard class(es)

ADR:

Class: 8 (CT1) Corrosive substances

Label: 8 + 6.1

IMDG, ICAO-TI:

Class: 8 Corrosive substances

Label: 8 + 6.1

14.4 Packaging group

ADR, IMDG, ICAO-TI: II

14.5 Environmental hazards

Product contains environmental hazards: Potassium dichromate

Marine pollutant: yes

Symbol (Fish and tree)

Special marking (ADR):

Symbol (Fish and tree)

14.6 Special precautions for user

Warning: corrosive substances

Danger code (Kemler): 86

EMS-Number: F-A, S-B

Segregation groups: Acids

Stowage category: B-SW2

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): 1 L

Excepted quantities (EQ): Code E2

Maximum quantity per inner packaging: 30 ml

Maximum quantity per outer packaging: 500 ml

Transport category (TC): 2

Tunnel restriction code (TRC): E

IMDG:

Limited quantities (LQ): 1 L

Excepted quantities (EQ): Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation": UN2922 CORROSIV LIQUID, TOXIC, N.O.S. (NITRIC ACID, potassium dichromate) ENVIROMENTALLY HAZARDOUS, 8 (6.1), II, (E)

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

Not relevant

1148/2019/EU on the marketing and use of explosives precursors

Distribution restrictions and conditions must be observed. No distribution to private persons.

1907/2006/EG - Annex XVII

Conditions of restriction: R3, R28-30, R47, R72, R75 (applies to individual components of the mixture)

Substances of very high concern (SVHC) according 1907/2007/EG , Article 57

7778-50-9 Potassium dichromate

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.

Other regulations, restrictions and prohibitions

For professional users only.

National regulations

Must be observed

15.2 Chemical Safety Assessment

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

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.

- H272 May intensify fire; oxidiser.
- H290 May be corrosive to metals.
- H301 Toxic if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H330 Fatal if inhaled.
- H331 Toxic if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H340 May cause genetic defects.
- H350 May cause cancer.
- H360FD May damage fertility or the unborn child.
- H372 Causes damage to organs through prolonged or repeated.
- H400 Very toxic to aquatic life.
- H410 May damage fertility or the unborn child.

16.2 Origin of data

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

16.3 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.

16.4 Abbreviations and acronyms

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 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: Persistent, Bioakkumulierend, Toxisch
vPvB: very Persistent and very Bioaccumulative
Ox. Liq. 3: Oxidising Liquids, Hazard Category 3
Ox. Sol. 2: Oxidising Solids, Hazard Category 2
Met. Corr. 1: Corrosive to metals, Hazard Category 1
Acute Tox. 2: Acute toxicity, Hazard Category 2
Acute Tox. 3: Acute toxicity, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Corr. 1A: Skin corrosive/irritation, Hazard Category 1A
Skin Corr. 1B: Skin corrosive/irritation, Hazard Category 1B
Eye Dam. 1: Serious eye damage/irritation, Hazard Category 1
Resp. Sens. 1: Sensitisation – Respiration, Hazard Category 1
Skin Sens. 1: Skin – Sensitisation, Hazard Category 1
Muta. 1B: Germ cell mutagenicity, Hazard Category 1
Carc. 1B: Carcinogenicity, Hazard Category 1
Repr. 1B: Reproductive toxicity, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment – Chronic Hazard, Category 2

* Data compared to the previous issue altered.

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH), amended by 2020/878/EU

Issue: 1 (collective edition)
(EU/GB)

Date of creation: 13.0.2024

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

1.1 Trade name:

21,6 kt Goldprobiersäure/Test acid for Gold

(Art.-no. 12439), UFI: PF00-Q07K-200F-4SU3

24 kt Goldprobiersäure/Test acid for Gold

(Art.-no. 12438), UFI: YH00-60WY-C00Y-T4E5

Platin Probiersäure/Test acid for Platine

(Art.-no. 12225), UFI: AM00-Q0MC-P00F-FG07

Restricted to professional users.

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

Application of the substance / the preparation	See trade name / according labelling under 1.1 Testing reagent for laboratory and precious metal trading
Uses advised against of the substance / the preparation	Others than like trade name all ways of spraying applications

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier

Köhler Special Chemicals

Nils Köhler

Geranienstraße 1

D-76751 Jockgrim

Phone: +49 (0) 7271/9896365

e-mail: koehler-special-chemicals@gmx.de

Website: 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 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:

Met. Corr. 1, H290; Acut Tox. 3, H331; Skin Corr. 1A, H314; Eye Dam. 1, H318

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

Hazard pictograms:



GHS05, GHS06

Signal word:

Danger

Hazard statements:

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H331 Toxic if inhaled.

Precautionary statements:

P260 Do not breathe vapours.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+330+331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Additional information: EUH071 Corrosive to the respiratory tract.

Hazardous ingredients for labelling: Nitric acid, hydrochloric acid

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

Hazardous components of the mixture

Ingredient:	EINECS:	CAS:	INDEX-No.:	REACH-No.:	Concentration:	Classification: EC 1272/2008(CLP):
Nitric acid	231-714-2	7697-37-2	007-004-00-1	01-2119487297-23-xxxx	25 - 50 %	Ox. Liq. 2; H272 Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318 Acut Tox 3; H331
Hydrochloric acid	231-595-7	7647-01-0	017-002-01-X	01-2119484862-27-xxxx	1 - 7 %	Met. Corr. 1 H290 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335

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

3.3 Additional informations

Contains no 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 Fresh air or oxygen; seek medical advice.

In case of unconsciousness place and transport in stable side position.

After skin contact Remove any clothing soiled by the product immediately.

Wash off with plenty of water. Seek medical advice.

After eye contact 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). No administration in cases of unconsciousness or convulsions. 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: Corrosivity, gastric perforation, risk of serious eye damage

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

suitable: Water-spray, Carbon dioxid (CO₂), foam, extinguishing powder

Unsuitable: Water with full jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: Nitrogen oxides (NO_x), Hydrogen chloride (HCl).

5.3 Advice for firefighters

Protective equipement

Wear full protective suit with self-contained breathing apparatus.

Additional informations

Extinguishing measures in accordance to the surrounding conditions. The product itself does not burn.

To protect persons and to cool endangered containers using water spray. Remove undamaged containers from the danger zone if possible without risk. Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipement and emergency procedures

Ensure adequate ventilation. Wear protective equipment. Remove persons to safety. Keep away unprotected persons.

6.2 Enviroment precautions

Inform respective authorities in case of seepage into water coures 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 5 for information on fire hazards of the substance or mixture

See section 7 for information on safe handling

See section 8 for inormation on personal protection equipement

See section 13 for disposal infomation

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.

Notes on general hygiene at the workplace

Wash hands before breaks and at the end of work.

Additional information

None

7.2 Conditions for safe storage including any incompatibilities

Technical measures and conditions

Ensure good ventilation.

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

Observe storage instructions.

Keep away from flammable/combustible products.

Do not store together with alkalis (lyes).

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.

Keep away from sources of heat and warmth.

Prevent contamination from entering.

Recommended storage temperature: 15 - 25 °C

Storage class (German TRGS 510): 6.1 D (Non-flammable, acutely toxic Cat. 3 / toxic or chronically acting hazardous substances.)

7.3 Specific end use(s)

See directions for use.

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	Notation	Source
EU	Nitric Acid	7697-37-2	IOLEV		1 ml/m ³ 2,6 mg/m ³			2006/15/EG
EU	Hydrogenchlorid	7647-01-0	IOLEV	5 ml/m ³ 8 mg/m ³	10 ml/m ³ 15 mg/m ³			2000/39/EG

Notation

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)

DNELs

7697-37-2 nitric acid

Inhalative DNEL (worker) 2,6 mg/m³ (Acute - local-effects)
DNEL (worker) 2,6 mg/m³ (Long-term - local-effects)

7647-01-0 Hydrochloric acid

Inhalative DNEL (worker) 15 mg/m³ (Acute - local-effects)
DNEL (worker) 8 mg/m³ (Long-term - local-effects)

PNECs

7647-01-0 Hydrochloric acid

Aquatic compartment - freshwater 0,036 mg/L
Aquatic compartment - marine water 0,036 mg/L
Aquatic compartment - water, intermittent releases 0,045 mg/L

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 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.

Breathing equipment

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 EN 136) with filter type ABEK(P2) (EN 14387). In case of intensive or longer exposure use breathing apparatus that is independent of circulating air (according 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

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

Gloves for the permanent contact are suitable of the following materials:

Recommended thickness: ≥ 0.7 mm Fluorocarbon rubber (Viton), Value for the permeation: Level ≥ 480 min

As protection from splashes gloves made of the following materials are suitable:

Recommended thickness: ≥ 0.6 mm Natural rubber (latex), Value for the permeation: Level ≥ 120 min

Further protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Eye protection

Tightly fitting safety glasses according EN 166.

Body protection

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

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

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
Color: Colourless – yellowish, clear
Odour: pungent

Safety relevant basic data

	Parameter	Value	Unit	Remark
Density:	at 20°C	1,25 - 1,3	g/cm ³	
pH:	undiluted	< 2		
Melting point / -range:				No data available
Initial boiling point/boiling range		approx. 118	°C	literature value for nitric acid 53 %
Flashpoint				not applicable
Ignition properties				not applicable
Lower ignition limits				not applicable
Upper igniton limits				not applicable
Explosiv properties				not explosive
Lower explosive limits				not applicable
Upper explosive limits				not applicable
Auto-ignition temperature				not applicable
Decomposition temperature				No data available
Oxidising properties				No data available
Vapour pressure	20°C	approx. 10	hPa	literature value for nitric acid 53 %
Evaporation rate				No data available
Solubility in water				completely miscible
Partition coefficient n-octanol/water				No data available
Viscosity:				No data available

9.2 Additional information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Reaction with: Alkalis

10.2 Chemical Stability

No decomposition if used according to the specifications.

10.3 Possibility of hazardous reactions

Reaction with: Alkalis

Reacts with metals forming hydrogen.

10.4 Conditions to avoid

UV rays/sunlight. Store away from heat.

10.5 Incompatible materials

Hazardous decomposition on contact with incompatible substances such as alkalis, (light) metals (release of flammable hydrogen on contact with metals).

10.6 Hazardous decomposition products

In case of fire, the following can be released: Nitrogen oxides (NO_x), Hydrogen chloride (HCl).

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

Toxic if inhaled

Acute toxicity estimate (ATE) of components of the mixture

Ingredient	CAS-No	Exposure route	ATE
Nitric Acid	7697-37-2	inhalation: vapour	2,65 mg/l 4h

Acute toxicity of components of the mixture

Ingredient	CAS-Nr.:	Exposure route
Nitric Acid	7697-37-2	Acute toxicity, inhalation: vapour LC50/4 h: > 2,65 mg/l (rat) (OECD 403)
Hydrochloric acid	7647-01-0	Acute toxicity, dermal LD50: > 5000 mg/l (Kaninchen)

Primary irritant effect

On the skin

Causes severe skin burns and eye damage.

On the eye

Causes serious eye damage.

After inhalation

Corrosive to the respiratory tract.

Sensitisation

No sensitizing effects known.

Specific target-organ toxicity

Single exposure – May irritate the respiratory tract.

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

Aspiration hazard

Is not to be classified as an aspiration hazard.

CMR-effects

Carcinogenicity

No effects known.

Mutagenicity

No effects known.

Reproductiv toxicity

No effects known.

Endocriens

No ingredient is listed.

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:	Ecotoxicity
Nitric acid	7697-37-2	Acute toxicity to crustacea LC50: 180 mg/l/48 h [Crangon crangon.]
Hydrochloric acid	7647-01-0	EC50/48h: 0,492 mg/l (Daphnia magna) LC50/96h: 24,6 mg/l (fish)

Data is from the Gestis substance database

12.2 Persistence and degradability

Methods of the determination of biodegradability are not applicable on inorganic substances.

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

Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.

12.6 Endocrins

No ingredient is listed.

12.7 Additional ecological information

Do not allow product to reach ground water, water bodies or sewage system. Does not cause biological oxygen deficit. Harmful effect due to pH shift.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

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

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

Small quantities can be fed into the waste water treatment after neutralisation (e.g. with "Neutralizer with colour indicator", manufactured by Köhler Special Chemicals).

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.

The allocation of waste code numbers is carried out according to the European Waste Catalogue

(EWC) industry-/process-specific.
Our suggestion: 20 01 14* acids

Packagings

After complete emptying and cleaning, the bottles can be recycled.

Uncleaned packagings

Disposal must be made according to official regulations.

SECTION 14: Transport informations

14.1 UN-Number

ADR, IMDG, ICAO-TI: UN 3264

14.2 Proper shipping name

ADR: 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, HYDROCHLORIC ACID)

IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, HYDROCHLORIC ACID)

ICAO-TI: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, HYDROCHLORIC ACID)

14.3 Transport hazard class(es)

ADR:

Class: 8 (C1) Corrosive substances

Label: 8

IMDG, ICAO-TI:

Class: 8 Corrosive substances

Label: 8

14.4 Packaging group

ADR, IMDG, ICAO-TI: II

14.5 Environmental hazards

Product contains environmental hazards: -

Marine pollutant: no

Special marking (ADR): -

14.6 Special precautions for user

Warning: corrosive substances

Danger code (Kemler): 80

EMS-Number: F-A, S-B

Segregation groups: Acids

Stowage category: B-SW2

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): 1 L

Exempt quantities (EQ): Code E2

Maximum quantity per inner packaging: 30 ml

Maximum quantity per outer packaging: 500 ml

Transport category (TC): 2

Tunnel restriction code (TRC): E

IMDG:

Limited quantities (LQ): 1 L
Expected quantities (EQ): Code: E2 Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation": UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(NITRIC ACID, HYDROCHLORIC ACID), 8, II, (E)

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
Not relevant

1148/2019/EU on the marketing and use of explosives precursors
Distribution restrictions and conditions must be observed. No distribution to private persons.

2012/18/EU - Restrictions according title VIII of Regulation
Named dangerous substances - Annex I: none of the ingredients is included.
Seveso Kategorie: H2 akute toxic
Qualifying Quantity for the application in lower-tier establishments: 50 tons
Qualifying Quantity for the application in upper-tier establishments: 200 tons

1907/2006/EG - Annex XVII
Conditions of restriction: 3, 75 (applies to individual components of the mixture)

Substances of Very High Concern (SVHC) according to REACH, Article 57
No ingredient is listed.

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.

Other regulations, restrictions and prohibitions
For professional users only.

National regulations
Must be observed

15.2 Chemical Safety Assessment

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

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.

- H272 May intensify fire; oxidiser.
- H290 May be corrosive to metals.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.

16.2 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.

16.3 Origin of datas

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

16.4 Abbreviations and acronyms

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)

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: Persistent, Bioakkumulierend, Toxisch

vPvB: very Persistent and very Bioaccumulative

Ox. Liq. 3: Oxidising Liquids, Hazard Category 3

Met. Corr. 1: Corrosive to metals, Hazard Category 1

Skin Corr. 1A: Skin corrosive/irritation, Hazard Category 1A

Skin Corr. 1B: Skin corrosive/irritation, Hazard Category 1B

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Acut Tox. 3: Acute toxicity, Hazard Category 3

STOT SE 3: Specific target organ toxicity (single exposure), Hazard Category 3

* Data compared to the previous issue altered.

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH), amended by 2020/878/EU

Issue: 1 (collective edition)
(EU-GB)

Date of creation: 13.03.2024

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

1.1 Trade name:

8 kt Goldprobiersäure/Test acid for Gold

(Art.-no. 12433), UFI: 9600-605D-400Y-5S2W

14 kt Goldprobiersäure/Test acid for Gold

(Art.-no. 12436), UFI: 5800-P0US-F00G-T3NY

18 kt Goldprobiersäure/Test acid for Gold

(Art.-no. 12437), UFI: WC00-60J5-R00Y-GF81

Restricted to professional users.

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

Application of the substance / the preparation	See trade name / according to labelling under 1.1
Uses advised against of the substance / the preparation	Testing reagent for laboratory and precious metal trading Others than like trade name all ways of spraying applications

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier

Köhler Special Chemicals

Nils Köhler

Geranienstraße 1

D-76751 Jockgrim

Phone: +49 (0) 7271/9896365

e-mail: koehler-special-chemicals@gmx.de

Website: 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 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:

Met. Corr. 1, H290; Acut Tox. 3, H331; Skin Corr. 1A, H314; Eye Dam. 1, H318

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

Hazard pictograms:



GHS05, GHS06

Signal word:

Danger

Hazard statements:

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.

Precautionary statements:

P260 Do not breathe vapours.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+330+331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Additional information:

EUH071 Corrosive to the respiratory tract.

Hazardous ingredients for labelling:

Nitric acid

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

Hazardous components of the mixture

Ingredient	EINECS	CAS no	INDEX-No	REACH-No	Concentration	Classification: EC 1272/2008(CLP):
Nitric acid	231-714-2	7697-37-2	007-004-00-1	01-2119487297-23-xxxx	25 - 50 %	Ox. Liq. 2; H272 Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318 Acute Tox 3; H331

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

3.3 Additional informations

Contains no SVHC substances

SECTION 4: First aid measures

4.1 Description of first aid measures

General informations

After inhalation

Remove any clothing soiled by the product immediately.
Fresh air or oxygen; seek medical advice.
In case of unconsciousness place and transport in stable side position.

After skin contact

Remove any clothing soiled by the product immediately.
Wash off with plenty of water. Seek medical advice.

After eye contact

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). No administration in cases of unconsciousness or convulsions. 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: Corrosivity, gastric perforation, risk of serious eye damage

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

suitable: Water-spray, Carbon dioxid (CO₂), foam, extinguishing powder

Unsuitable: Water with full jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: Nitrogen oxides (NO_x).

5.3 Advice for firefighters

Protective equipement

Wear full protective suit with self-contained breathing apparatus.

Additional informations

Extinguishing measures in accordance to the surrounding conditions. The product itself does not burn.

To protect persons and to cool endangered containers using water spray. Remove undamaged containers from the danger zone if possible without risk. Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipement and emergency procedures

Ensure adequate ventilation. Wear protective equipment. Remove persons to safety. Keep away unprotected persons.

6.2 Enviroment precautions

Inform respective authorities in case of seepage into water coures 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 5 for information on fire hazards of the substance or mixture

See section 7 for information on safe handling

See section 8 for inormation on personal protection equipement

See section 13 for disposal infomation

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.

Notes on general hygiene at the workplace

Wash hands before breaks and at the end of work.

Additional information

None

7.2 Conditions for safe storage including any incompatibilities

Technical measures and conditions

Ensure good ventilation.

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

Observe storage instructions.

Keep away from flammable/combustible products.

Do not store together with alkalis (lyes).

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.

Keep away from sources of heat and warmth.

Prevent contamination from entering.

Recommended storage temperature: 15 - 25 °C

Storage class (German TRGS 510):

6.1 D (Non-flammable, acutely toxic Cat. 3 / toxic or chronically acting hazardous substances.)

7.3 Specific end use(s)

See directions for use.

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	Notation	Source
EU	Nitric Acid	7697-37-2	IOLEV		1 ml/m ³ 2,6 mg/m ³			2006/15/EG

Notation

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)

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

DNELs

7697-37-2 nitric acid

Inhalative DNEL (worker) 2,6 mg/m³ (Acute - local-effects)

DNEL (worker) 2,6 mg/m³ (Long-term - local-effects)

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.

Breathing equipment

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 EN 136) with filter type ABEK(P2) (EN 14387). In case of intensive or longer exposure use breathing apparatus that is independent of circulating air (according 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

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

Gloves for the permanent contact are suitable of the following materials:

Recommended thickness: ≥ 0.7 mm Fluorocarbon rubber (Viton), Value for the permeation: Level ≥ 480 min

As protection from splashes gloves made of the following materials are suitable:

Recommended thickness: ≥ 0.6 mm Natural rubber (latex), Value for the permeation: Level ≥ 120 min

Further protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Eye protection

Tightly fitting safety glasses according EN 166.

Body protection

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

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

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
Color: Colourless – yellowish, clear
Odour: pungent

Safety relevant basic data

	Parameter	Value	Unit	Remark
Density:	at 20°C	1,17 - 1,37	g/cm ³	
pH:	undiluted	< 2		
Melting point / -range:				No data available
Initial boiling point/boiling range		approx. 118	°C	literature value for nitric acid 53 %
Flashpoint				not applicable
Ignition properties				not applicable
Lower ignition limits				not applicable
Upper ignition limits				not applicable
Explosiv properties				not explosive
Lower explosive limits				not applicable
Upper explosive limits				not applicable
Auto-ignition temperature				not applicable
Decomposition temperature				No data available
Oxidising properties				No data available
Vapour pressure	at 20°C	approx. 10	hPa	literature value for nitric acid 53 %
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

9.2 Additional information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Reaction with: Alkalis

10.2 Chemical Stability

No decomposition if used according to the specifications.

10.3 Possibility of hazardous reactions

Reaction with: Alkalis
Reacts with metals forming hydrogen.

10.4 Conditions to avoid

UV rays/sunlight. Store away from heat.

10.5 Incompatible materials

Hazardous decomposition on contact with incompatible substances such as alkalis, (light) metals (release of flammable hydrogen on contact with metals).

10.6 Hazardous decomposition products

In case of fire, the following can be released: 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

Toxic if inhaled

Acute toxicity estimate (ATE) of components of the mixture

Ingredient	CAS-No	Exposure route	ATE
Nitric Acid	7697-37-2	inhalation: vapour	2,65 mg/l 4h

Acute toxicity of components of the mixture

Ingredient	CAS-Nr.:	Exposure route
Nitric Acid	7697-37-2	Acute toxicity, inhalation: vapour LC50/4 h: > 2,65 mg/l (rat) (OECD 403)

Primary irritant effect

On the skin

Causes severe skin burns and eye damage.

On the eye

Causes serious eye damage.

After inhalation

Corrosive to the respiratory tract.

Sensitisation

No sensitizing effects known.

Specific target-organ toxicity

Single exposure – May irritate the respiratory tract.

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

Aspiration hazard

Is not to be classified as an aspiration hazard.

CMR-effects

Carcinogenicity

No effects known.

Mutagenicity

No effects known.

Reproductiv toxicity

No effects known.

Endocriens

No ingredient is listed.

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
Nitric acid	7697-37-2	Acute toxicity to crustacea LC50: 180 mg/l/48 h [Crangon crangon.]

Data is from the GESTIS substance database

12.2 Persistence and degradability

Methods of the determination of biodegradability are not applicable on inorganic substances.

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

Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.

12.6 Endocrins

No ingredient is listed.

12.7 Additional ecological information

Do not allow product to reach ground water, water bodies or sewage system. Does not cause biological oxygen deficit. Harmful effect due to pH shift.

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.

Small quantities can be fed into the waste water treatment after neutralisation (e.g. with "Neutralizer with colour indicator", manufactured by Köhler Special Chemicals).

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.

The allocation of waste code numbers is carried out according to the European Waste Catalogue (EWC) industry-/process-specific.

Our suggestion: 20 01 14* acids

Packagings

After complete emptying and cleaning, the bottles can be recycled.

Uncleaned packagings

Disposal must be made according to official regulations.

SECTION 14: Transport informations

14.1 UN-Number

ADR, IMDG, ICAO-TI: UN 3264

14.2 Proper shipping name

ADR: 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

ICAO-TI: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

14.3 Transport hazard class(es)

ADR:

Class: 8 (C1) Corrosive substances

Label: 8

IMDG, ICAO-TI:

Class: 8 Corrosive substances

Label: 8

14.4 Packaging group

ADR, IMDG, ICAO-TI: II

14.5 Environmental hazards

Product contains environmental hazards: -

Marine pollutant: no

Special marking (ADR): -

14.6 Special precautions for user

Warning: corrosive substances

Danger code (Kemler): 80

EMS-Number: F-A, S-B

Segregation groups: Acids

Stowage category: B-SW2

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): 1 L

Excepted quantities (EQ): Code E2

Maximum quantity per inner packaging: 30 ml

Maximum quantity per outer packaging: 500 ml

Transport category (TC): 2

Tunnel restriction code (TRC): E

IMDG:

Limited quantities (LQ): 1 L

Excepted quantities (EQ): Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation": UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, II, (E)

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

Not relevant

1148/2019/EU on the marketing and use of explosives precursors

Distribution restrictions and conditions must be observed. No distribution to private persons.

2012/18/EU - Restrictions according title VIII of Regulation

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

Seveso Categorie: H2 akute toxic

Qualifying Quantity for the application in lower-tier establishments: 50 tons

Qualifying Quantity for the application in upper-tier establishments: 200 tons

1907/2006/EG - Annex XVII

Conditions of restriction: 3, 75 (applies to individual components of the mixture)

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

No ingredient is listed.

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.

Other regulations, restrictions and prohibitions

For professional users only.

National regulations

Must be observed

15.2 Chemical Safety Assessment

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

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.

H272 May intensify fire; oxidiser.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

16.2 Origin of datas

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

16.3 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.

16.4 Abbreviations and acronyms

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)
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: Persistent, Bioakkumulierend, Toxisch
vPvB: very Persistent and very Bioaccumulative
Ox. Liq. 3: Oxidising Liquids, Hazard Category 3
Met. Corr. 1: Corrosive to metals, Hazard Category 1
Skin Corr. 1A: Skin corrosive/irritation, Hazard Category 1A
Acute Tox. 3: Acute toxicity, Hazard Category 3
STOT SE 3, Specific target organ toxicity (single exposure), Hazard Category 3

* Data compared to the previous issue altered.

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH), amended by 2020/878/EU

Issue: 1 (collective edition)
(EU-GB)

Date of creation: 13.03.2024

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

1.1 Trade name:

8 kt Goldprobiersäure/Test acid for Gold

(Art.-no. 12433), UFI: 9600-605D-400Y-5S2W

14 kt Goldprobiersäure/Test acid for Gold

(Art.-no. 12436), UFI: 5800-P0US-F00G-T3NY

18 kt Goldprobiersäure/Test acid for Gold

(Art.-no. 12437), UFI: WC00-60J5-R00Y-GF81

Restricted to professional users.

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

Application of the substance / the preparation	See trade name / according labelling under 1.1
Uses advised against of the substance / the preparation	Testing reagent for laboratory and precious metal trading Others than like trade name all ways of spraying applications

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier

Köhler Special Chemicals

Nils Köhler

Geranienstraße 1

D-76751 Jockgrim

Phone: +49 (0) 7271/9896365

e-mail: koehler-special-chemicals@gmx.de

Website: 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 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:

Met. Corr. 1, H290; Acut Tox. 3, H331; Skin Corr. 1A, H314; Eye Dam. 1, H318

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

Hazard pictograms:



GHS05, GHS06

Signal word:

Danger

Hazard statements:

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.

Precautionary statements:

P260 Do not breathe vapours.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+330+331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Additional information:

EUH071 Corrosive to the respiratory tract.

Hazardous ingredients for labelling:

Nitric acid

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

Hazardous components of the mixture

Ingredient	EINECS	CAS no	INDEX-No	REACH-No	Concentration	Classification: EC 1272/2008(CLP):
Nitric acid	231-714-2	7697-37-2	007-004-00-1	01-2119487297-23-xxxx	25 - 50 %	Ox. Liq. 2; H272 Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318 Acute Tox 3; H331

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

3.3 Additional informations

Contains no 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

Fresh air or oxygen; seek medical advice.

In case of unconsciousness place and transport in stable side position.

After skin contact

Remove any clothing soiled by the product immediately.

Wash off with plenty of water. Seek medical advice.

After eye contact

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). No administration in cases of unconsciousness or convulsions. 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: Corrosivity, gastric perforation, risk of serious eye damage

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

suitable: Water-spray, Carbon dioxid (CO₂), foam, extinguishing powder

Unsuitable: Water with full jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: Nitrogen oxides (NO_x).

5.3 Advice for firefighters

Protective equipement

Wear full protective suit with self-contained breathing apparatus.

Additional informations

Extinguishing measures in accordance to the surrounding conditions. The product itself does not burn.

To protect persons and to cool endangered containers using water spray. Remove undamaged containers from the danger zone if possible without risk. Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipement and emergency procedures

Ensure adequate ventilation. Wear protective equipment. Remove persons to safety. Keep away unprotected persons.

6.2 Enviroment precautions

Inform respective authorities in case of seepage into water coures 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 5 for information on fire hazards of the substance or mixture

See section 7 for information on safe handling

See section 8 for inormation on personal protection equipement

See section 13 for disposal infomation

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.

Notes on general hygiene at the workplace

Wash hands before breaks and at the end of work.

Additional information

None

7.2 Conditions for safe storage including any incompatibilities

Technical measures and conditions

Ensure good ventilation.

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

Observe storage instructions.

Keep away from flammable/combustible products.

Do not store together with alkalis (lyes).

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.

Keep away from sources of heat and warmth.

Prevent contamination from entering.

Recommended storage temperature: 15 - 25 °C

Storage class (German TRGS 510):

6.1 D (Non-flammable, acutely toxic Cat. 3 / toxic or chronically acting hazardous substances.)

7.3 Specific end use(s)

See directions for use.

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	Notation	Source
EU	Nitric Acid	7697-37-2	IOLEV		1 ml/m ³ 2,6 mg/m ³			2006/15/EG

Notation

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)

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

DNELs

7697-37-2 nitric acid

Inhalative DNEL (worker) 2,6 mg/m³ (Acute - local-effects)

DNEL (worker) 2,6 mg/m³ (Long-term - local-effects)

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.

Breathing equipment

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 EN 136) with filter type ABEK(P2) (EN 14387). In case of intensive or longer exposure use breathing apparatus that is independent of circulating air (according 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

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

Gloves for the permanent contact are suitable of the following materials:

Recommended thickness: ≥ 0.7 mm Fluorocarbon rubber (Viton), Value for the permeation: Level ≥ 480 min

As protection from splashes gloves made of the following materials are suitable:

Recommended thickness: ≥ 0.6 mm Natural rubber (latex), Value for the permeation: Level ≥ 120 min

Further protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Eye protection

Tightly fitting safety glasses according EN 166.

Body protection

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

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

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
Color: Colourless – yellowish, clear
Odour: pungent

Safety relevant basic data

	Parameter	Value	Unit	Remark
Density:	at 20°C	1,17 - 1,37	g/cm ³	
pH:	undiluted	< 2		
Melting point / -range:				No data available
Initial boiling point/boiling range		approx. 118	°C	literature value for nitric acid 53 %
Flashpoint				not applicable
Ignition properties				not applicable
Lower ignition limits				not applicable
Upper ignition limits				not applicable
Explosiv properties				not explosive
Lower explosive limits				not applicable
Upper explosive limits				not applicable
Auto-ignition temperature				not applicable
Decomposition temperature				No data available
Oxidising properties				No data available
Vapour pressure	at 20°C	approx. 10	hPa	literature value for nitric acid 53 %
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

9.2 Additional information

No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Reaction with: Alkalis

10.2 Chemical Stability

No decomposition if used according to the specifications.

10.3 Possibility of hazardous reactions

Reaction with: Alkalis
Reacts with metals forming hydrogen.

10.4 Conditions to avoid

UV rays/sunlight. Store away from heat.

10.5 Incompatible materials

Hazardous decomposition on contact with incompatible substances such as alkalis, (light) metals (release of flammable hydrogen on contact with metals).

10.6 Hazardous decomposition products

In case of fire, the following can be released: 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

Toxic if inhaled

Acute toxicity estimate (ATE) of components of the mixture

Ingredient	CAS-No	Exposure route	ATE
Nitric Acid	7697-37-2	inhalation: vapour	2,65 mg/l 4h

Acute toxicity of components of the mixture

Ingredient	CAS-Nr.:	Exposure route
Nitric Acid	7697-37-2	Acute toxicity, inhalation: vapour LC50/4 h: > 2,65 mg/l (rat) (OECD 403)

Primary irritant effect

On the skin

Causes severe skin burns and eye damage.

On the eye

Causes serious eye damage.

After inhalation

Corrosive to the respiratory tract.

Sensitisation

No sensitizing effects known.

Specific target-organ toxicity

Single exposure – May irritate the respiratory tract.

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

Aspiration hazard

Is not to be classified as an aspiration hazard.

CMR-effects

Carcinogenicity

No effects known.

Mutagenicity

No effects known.

Reproductiv toxicity

No effects known.

Endocriens

No ingredient is listed.

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
Nitric acid	7697-37-2	Acute toxicity to crustacea LC50: 180 mg/l/48 h [Crangon crangon.]

Data is from the GESTIS substance database

12.2 Persistence and degradability

Methods of the determination of biodegradability are not applicable on inorganic substances.

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

Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.

12.6 Endocrins

No ingredient is listed.

12.7 Additional ecological information

Do not allow product to reach ground water, water bodies or sewage system. Does not cause biological oxygen deficit. Harmful effect due to pH shift.

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.

Small quantities can be fed into the waste water treatment after neutralisation (e.g. with "Neutralizer with colour indicator", manufactured by Köhler Special Chemicals).

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.

The allocation of waste code numbers is carried out according to the European Waste Catalogue (EWC) industry-/process-specific.

Our suggestion: 20 01 14* acids

Packagings

After complete emptying and cleaning, the bottles can be recycled.

Uncleaned packagings

Disposal must be made according to official regulations.

SECTION 14: Transport informations

14.1 UN-Number

ADR, IMDG, ICAO-TI: UN 3264

14.2 Proper shipping name

ADR: 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

ICAO-TI: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

14.3 Transport hazard class(es)

ADR:

Class: 8 (C1) Corrosive substances

Label: 8

IMDG, ICAO-TI:

Class: 8 Corrosive substances

Label: 8

14.4 Packaging group

ADR, IMDG, ICAO-TI: II

14.5 Environmental hazards

Product contains environmental hazards: -

Marine pollutant: no

Special marking (ADR): -

14.6 Special precautions for user

Warning: corrosive substances

Danger code (Kemler): 80

EMS-Number: F-A, S-B

Segregation groups: Acids

Stowage category: B-SW2

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): 1 L

Excepted quantities (EQ): Code E2

Maximum quantity per inner packaging: 30 ml

Maximum quantity per outer packaging: 500 ml

Transport category (TC): 2

Tunnel restriction code (TRC): E

IMDG:

Limited quantities (LQ): 1 L

Excepted quantities (EQ): Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation": UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, II, (E)

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

Not relevant

1148/2019/EU on the marketing and use of explosives precursors

Distribution restrictions and conditions must be observed. No distribution to private persons.

2012/18/EU - Restrictions according title VIII of Regulation

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

Seveso Categorie: H2 akute toxic

Qualifying Quantity for the application in lower-tier establishments: 50 tons

Qualifying Quantity for the application in upper-tier establishments: 200 tons

1907/2006/EG - Annex XVII

Conditions of restriction: 3, 75 (applies to individual components of the mixture)

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

No ingredient is listed.

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.

Other regulations, restrictions and prohibitions

For professional users only.

National regulations

Must be observed

15.2 Chemical Safety Assessment

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

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.

H272 May intensify fire; oxidiser.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

16.2 Origin of datas

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

16.3 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.

16.4 Abbreviations and acronyms

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)
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: Persistent, Bioakkumulierend, Toxisch
vPvB: very Persistent and very Bioaccumulative
Ox. Liq. 3: Oxidising Liquids, Hazard Category 3
Met. Corr. 1: Corrosive to metals, Hazard Category 1
Skin Corr. 1A: Skin corrosive/irritation, Hazard Category 1A
Acute Tox. 3: Acute toxicity, Hazard Category 3
STOT SE 3, Specific target organ toxicity (single exposure), Hazard Category 3

* Data compared to the previous issue altered.

Sicherheitsdatenblatt

gemäß Verordnung (EG) Nr. 1907/2006 (REACH), geändert mit 2020/878/EU

Version: 1.1
(DE-DE)

Erstellungsdatum: 07.03.2024

Abschnitt 1: Bezeichnung des Stoffes bzw. des Gemischs und des Unternehmens

1.1 Produktidentifikator

8 kt Goldprüfsäure (Art.-Nr. 12433), UFI: 9600-605D-400Y-5S2W

Nur für gewerbliche Anwendung

1.2 Relevante identifizierte Verwendungen des Stoffes oder Gemischs und Verwendungen von denen abgeraten wird

Identifizierte Verwendungen des Stoffes / Gemischs: Gemäß Produktbezeichnung 1.1
Prüf-Reagenz für Labor und Edelmetallhandel

Abgeratene Verwendungen des Stoffes / Gemischs: Alle Arten von Sprüh- oder
Vernebelungsapplikation

1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt

Hersteller / Lieferant

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

Telefon: +49 (0) 7271 9896365
E-Mail: koehler-special-chemicals@gmx.de
Webseite: <http://www.koehler-special-chemicals.de>

*1.4 Notrufnummer

Informationszentrale gegen Vergiftungen am Universitätsklinikum Bonn
Telefon: +49 (0) 228 19240
24 Stunden Dienst. Sprachen: deutsch

1.5 Auskunft gebender Bereich

Köhler Special Chemicals, Kontaktdaten siehe oben

Abschnitt 2: Mögliche Gefahren

2.1 Einstufung des Stoffes oder Gemischs

Einstufung gemäß Verordnung (EG) Nr. 1272/2008 (CLP)
Met. Corr. 1, H290; Acut Tox. 3, H331; Skin Corr. 1A, H314; Eye Dam. 1, H318

2.2 Kennzeichnungselemente

Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008 (CLP)

Gefahrenpiktogramme:

GHS05, GHS06



Signalwort: Gefahr

H-Sätze:

H290 Kann gegenüber Metallen korrosiv sein.
H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
H331 Giftig beim Einatmen.

P-Sätze:

P260 Dämpfe nicht einatmen.
P280 Schutzhandschuhe/Schutzkleidung/Augenschutz/Gesichtsschutz tragen.
P301+330+331 BEI VERSCHLUCKEN: Mund ausspülen. KEIN Erbrechen herbeiführen.
P303+P361+P353 BEI KONTAKT MIT DER HAUT (oder dem Haar): Alle beschmutzten, getränkten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen/duschen.
P305+351+338 BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.

Zusätzliche Abgaben

EUH071 Wirkt ätzend auf die Atemwege.

Gefahrenbestimmende Komponente(n) zur Etikettierung

Salpetersäure

2.3 Sonstige Gefahren

Ergebnisse der PBT- und vPvB-Beurteilung

PBT: Nicht anwendbar.

vPvB: Nicht anwendbar.

Endokrinschädliche Eigenschaften

Enthält keinen endokrinen Disruptor (EDC) in einer Konzentration von $\geq 0,1\%$.

Abschnitt 3: Zusammensetzung / Angabe zu Bestandteilen

3.1 Stoffe

nicht relevant (Gemisch)

3.2 Gemische

Zusammensetzung des Gemisches

Stoff:	EINECS:	CAS-Nr.:	INDEX-Nr.:	REACH-Nr.:	Konzentration:	Einstufung: EC 1272/2008(GLP):
Salpetersäure	231-714-2	7697-37-2	007-004-00-1	01- 2119487297- 23-xxxx	25 - 50 Gew.-%	Ox. Liq. 3; H272 Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318 Acut Tox. 3; H331

(Der Wortlaut der angeführten Gefahrenhinweise ist Kapitel 16 zu entnehmen)

3.3 Zusätzliche Hinweise

Enthält keine SVHC-Stoffe

Abschnitt 4: Erste-Hilfe-Maßnahmen

4.1 Beschreibung der Erste-Hilfe-Maßnahmen

Allgemeine Hinweise: Mit Produkt verunreinigte Kleidungsstücke unverzüglich entfernen.

nach Einatmen: Frischluft- oder Sauerstoffzufuhr; ärztliche Hilfe in Anspruch nehmen.

Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.

Nach Hautkontakt: Mit Produkt verschmutzte Kleidung sofort ausziehen. Sofort mit viel Wasser gründlich abwaschen. Arzt konsultieren.

nach Augenkontakt: Sofort mit viel Wasser gründlich abwaschen, sterilen Schutzverband anlegen, Arzt konsultieren. Bei Berührung mit den Augen sofort bei geöffnetem Lidspalt 10 bis 15 Minuten mit fließendem

Wasser spülen. Anschließend Augenarzt aufsuchen.

nach Verschlucken: Sofort viel Wasser in kleinen Schlucken trinken lassen (Verdünnungseffekt).
Kein Erbrechen herbeiführen. Sofort Arzt hinzuziehen.

Selbstschutz: Ersthelfer: Auf Selbstschutz achten!

4.2 Wichtige akute und verzögert auftretende Symptome und Gefahren

Symptome: Ätzwirkung, Magenperforation, Gefahr ernster Augenschäden

4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung

Keine weiteren relevanten Informationen verfügbar.

Abschnitt 5: Maßnahmen zur Brandbekämpfung

5.1 Löschmittel

geeignete: Wassersprühstrahl, Kohlendioxid (CO₂), Schaum, Trockenlöschmittel

ungeeignet: Wasservollstrahl

5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren

Im Brandfall können entstehen: Stickoxide (NO_x)

5.3 Hinweise für die Brandbekämpfung

Besondere Schutzausrüstung bei der Brandbekämpfung

Im Brandfall: Umgebungsluftunabhängiges Atemschutzgerät verwenden. Chemikalienschutzanzug tragen.

Zusätzliche Hinweise

Das Produkt selbst brennt nicht. Löschmaßnahmen auf die Umgebung abstimmen. Kontaminiertes Löschwasser getrennt sammeln. Zum Schutz von Personen und zur Kühlung von Behältern im Gefahrenbereich Wassersprühstrahl einsetzen. Wenn gefahrlos möglich, unbeschädigte Behälter aus der Gefahrenzone entfernen. Nicht in die Kanalisation oder Gewässer gelangen lassen.

Abschnitt 6: Maßnahmen bei unbeabsichtigter Freisetzung

6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren

Für ausreichende Lüftung sorgen. Persönliche Schutzausrüstung tragen. Personen in Sicherheit bringen. Ungeschützte Personen fernhalten. Kontakt mit Haut, Augen und Kleidung vermeiden. Dampf/Aerosol nicht einatmen.

6.2 Umweltschutzmaßnahmen

Bei Eindringen in Gewässer oder Kanalisation sofort zuständige Behörden benachrichtigen. Bei Freisetzung größerer Mengen zuständige Behörden informieren.

6.3 Methoden und Material für Rückhaltung und Reinigung

Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder) aufnehmen. Das aufgenommene Material gemäß Abschnitt 13 behandeln. Verunreinigte Flächen gründlich reinigen. Mit reichlich Wasser abwaschen.

6.4 Verweise auf andere Abschnitte

Gefährliche Verbrennungsprodukte: siehe Abschnitt 5

Sichere Handhabung: siehe Abschnitt 7

Persönliche Schutzausrüstung: siehe Abschnitt 8

Entsorgung: siehe Abschnitt 13

Abschnitt 7: Handhabung und Lagerung

7.1 Schutzmaßnahmen zur sicheren Handhabung

Hinweis zum sicheren Umgang

Behälter dicht geschlossen halten. Behälter mit Vorsicht öffnen und handhaben. Nur in gut gelüfteten Bereichen verwenden. Bei offenem Umgang sind Vorrichtungen mit lokaler Absaugung zu verwenden. Dampf/Aerosol nicht einatmen. Berührung mit den Augen und der Haut vermeiden.

Technische Maßnahmen

Für ausreichende Belüftung und punktförmige Absaugung an kritischen Punkten sorgen.

Hinweise zur allgemeinen Hygiene am Arbeitsplatz

Vor den Pausen und bei Arbeitsende Hände waschen.

7.2 Bedingungen zur sicheren Lagerung

Technische Maßnahmen und Lagerbedingungen

Ausreichende Lagerraumbelüftung sicherstellen.

Verpackungsmaterialien

Nur im Originalbehälter aufbewahren/lagern. Behälter dicht geschlossen halten.

Anforderungen an Lagerräume und Behälter

Behälter dicht geschlossen halten und an einem kühlen, gut gelüfteten Ort aufbewahren. Gesetze und Vorschriften zur Lagerung und Verwendung wassergefährdender Stoffe beachten.

Zusammenlagerungshinweise

Zusammenlagerungshinweise beachten.
Von entzündlichen/brennbaren Produkten fernhalten.
Nicht zusammen mit Alkalien (Laugen) lagern.
Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.

Weitere Angaben zu Lagerbedingungen

Gegen äußere Einwirkungen schützen, wie UV-Einstrahlung/Sonnenlicht, Luft-/Sauerstoffzutritt.
Von Hitze- und Wärmequellen fernhalten.
Eintrag von Verschmutzungen verhindern.
Empfohlene Lagertemperatur: 15 - 25 °C

Lagerklasse (TRGS 510)(Deutschland): 6.1 D Nicht brennbare, akut toxische Kat. 3 / giftige oder chronisch wirkende Gefahrstoffe.

7.3 Spezifische Endanwendungen

Es liegen keine Informationen vor.

Abschnitt 8: Begrenzung und Überwachung der Exposition / Persönliche Schutzausrüstung

8.1 Zu überwachende Parameter

Grenzwerte für die Exposition am Arbeitsplatz

Expositionsgrenzwerte

Land	Stoff	CAS-Nr.	Identifikator	SMV	KZW	Mow	Hinweis	Quelle:
EU	Salpetersäure	7697-37-2	IOLEV		1 ml/m ³ 2,6 mg/m ³			2006/15/EG
DE	Salpetersäure	7697-37-2	MAK		1 ml/m ³ 2,6 mg/m ³			TRGS 900

Hinweis:

GKV Grenzwertverordnung

IOLEV Arbeitsplatz-Richtgrenzwert

KZW Kurzzeitwert (Grenzwert für Kurzzeiteexposition): Grenzwert der nicht überschritten werden soll, auf eine Dauer von 15 Minuten bezogen (soweit nicht anders angegeben)

Mow	Momentanwert ist der Grenzwert, der nicht überschritten werden soll (ceiling value)
SMW	Schichtmittelwert (Grenzwert für Langzeitexposition): Zeitlich gewichteter Mittelwert, gemessen oder berechnet für einen Bezugszeitraum von acht Stunden (soweit nicht anders angegeben)
Y	Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden

DNEL-Werte

7697-37-2 Salpetersäure

Inhalativ DNEL (worker) 2,6 mg/m³ (akut - lokale Wirkung)

Inhalativ DNEL (worker) 2,6 mg/m³ (chronisch - lokale Wirkungen)

8.2 Begrenzung und Überwachung der Exposition

Allgemeine Schutz- und Hygienemaßnahmen

Technische Maßnahmen und die Anwendung geeigneter Arbeitsverfahren haben Vorrang vor dem Einsatz persönlicher Schutzausrüstung.

Die persönliche Schutzausrüstung ist je nach Menge und Konzentration von Gefahrstoffen am Arbeitsplatz festzulegen. (Gefährdungsbeurteilung)

Von Getränken, Nahrungs- und Futtermitteln fernhalten. Beschmutzte, getränkte Kleidung sofort ausziehen.

Vor den Pausen und bei Arbeitsende Hände waschen. Getrennte Aufbewahrung der Schutzkleidung.

Berührung mit den Augen und der Haut vermeiden. Dämpfe nicht einatmen.

Atemschutz

Bei dauerhaft sicherer Einhaltung der Arbeitsplatzgrenzwerte und sonstiger Grenzwerte ist normal kein Atemschutz erforderlich.

Bei Überschreiten der Auslöseschwelle → Atemfiltergerät. Bei kurzzeitiger oder geringer Belastung Atemfiltergerät (Gesichtsmaske nach EN 136) mit Filter Typ ABEK (P2) (nach EN 14387).

Bei intensiver bzw. längerer Exposition umluftunabhängiges Atemschutzgerät (gem. EN 137) verwenden.

Handschutz

Die Schutzhandschuhe müssen der Norm EN 374-3 entsprechen.

Schutzhandschuhe Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden. Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

Handschuhmaterial

Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich.

Für den Dauerkontakt sind Handschuhe aus folgenden Materialien geeignet: Empfohlene Materialstärke: ≥ 0,7 mm Fluorkautschuk (Viton) Wert für die Permeation: Level ≥ 480 min

Als Spritzschutz sind Handschuhe aus folgenden Materialien geeignet: Empfohlene Materialstärke: ≥ 0,6 mm Naturkautschuk (Latex) Wert für die Permeation: Level ≥ 120 min

Sonstige Schutzmaßnahmen

Erholungsphasen zur Regeneration der Haut einlegen. Vorbeugender Hautschutz (Schutzcremes/Salben) wird empfohlen.

Augenschutz

Dicht schließende Schutzbrille gemäß EN 166.

Körperschutz

Arbeitsschutzkleidung gemäß EN 13688. Chemikalienbeständige Sicherheitsschuhe oder -stiefel gem. EN 13832-1. Wenn Hautkontakt auftreten kann, für dieses Produkt undurchlässige Schutzkleidung nach EN 13034 tragen.

Begrenzung und Überwachung der Umweltexposition

siehe Kapitel 7. Es sind keine darüber hinausgehenden Maßnahmen erforderlich.

8.3 Expositionsszenario

keine

Abschnitt 9: Physikalische und chemische Eigenschaften

9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften

Erscheinungsbild

Aggregatzustand: flüssig
Farbe: klar-gelblich
Geruch: stechend

Sicherheitsrelevante Basisdaten

	Parameter	Wert	Bemerkung
Dichte:	bei °C: 20	1,17 - 1,37 g/cm ³	
Schüttdichte:			nicht anwendbar
pH:	Orig.-Prod.	< 2	
Schmelzpunkt / -bereich:			Keine Daten verfügbar
Siedepunkt / -bereich:		118°C	Literaturwert für Salpetersäure 53 %
Flammpunkt:			nicht anwendbar
Entzündbarkeit:			nicht anwendbar
Untere Entzündbarkeitsgrenze:			nicht anwendbar
Obere Entzündbarkeitsgrenze:			nicht anwendbar
Explosionsgefahr:			nicht explosionsgefährlich.
Untere Explosionsgrenze:			nicht anwendbar
Obere Explosionsgrenze:			nicht anwendbar
Selbstentzündungstemperatur:			nicht anwendbar
Zersetzungstemperatur:			Keine Daten verfügbar
Brandfördernde Eigenschaften:			nicht anwendbar
Dampfdruck:	bei 20°C	ca. 10 hPa	Literaturwert für Salpetersäure 53 %
Relative Dampfdichte:			Keine Daten verfügbar
Verdampfungsgeschwindigkeit / Verdunstungszahl:			Keine Daten verfügbar
Wasserlöslichkeit:			vollständig mischbar
Fettlöslichkeit:			unlöslich
Löslichkeit in:			nicht anwendbar
log P O/W (n-Octanol / Wasser):			Keine Daten verfügbar
Viskosität:			Keine Daten verfügbar
Lösemitteltrennprüfung:			Keine Daten verfügbar

9.2 Sonstige Angaben

Keine weiteren relevanten Informationen verfügbar.

Abschnitt 10: Stabilität und Reaktivität

10.1 Reaktivität

Reagiert mit: Alkalien (Laugen).

10.2 Chemische Stabilität

Das Produkt ist chemisch stabil.

10.3 Mögliche Reaktionen

Heftige Reaktionen mit: Alkalien (Laugen).
Kann mit Metallen unter Bildung von Wasserstoff reagieren.

10.4 Zu vermeidende Bedingungen

UV-Strahlen/Sonnenlicht. Vor Hitze geschützt lagern.

10.5 Unverträgliche Materialien

Gefährliche Zersetzung bei Kontakt mit unverträglichen Stoffen wie Alkalien, (Leicht-)Metallen (Freisetzung von entzündlichem Wasserstoff bei Kontakt mit Metallen).

10.6 Gefährliche Zersetzungsprodukte

Im Brandfall können entstehen: Stickoxide (NO_x)

Abschnitt 11: Toxikologische Angaben

11.1 Angaben zu toxikologischen Wirkungen

Es sind keine Daten für die Mischung verfügbar.

Akute Toxizität

Giftig beim Einatmen

Schätzwert akuter Toxizität (ATE) von Bestandteilen der Mischung

Stoff:	CAS-Nr.:	Expositionsweg	ATE
Salpetersäure	7697-37-2	Inhalativ (Dampf)	2,65 mg/l 4h

Akute Toxizität von Bestandteilen der Mischung

Stoff:	CAS-Nr.:	Toxikologische Angaben
Salpetersäure	7697-37-2	Akute Toxizität, inhalativ LC50/4 h: > 2,65 mg/l (Ratte) (OECD 403)

Reizung und Ätzwirkung

Reizwirkung an der Haut

Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

Reizwirkung am Auge

Verursacht schwere Augenschäden.

Reizwirkung der Atemwege

Ätzende Wirkung auf Haut und Schleimhäute

Sensibilisierung

Keine sensibilisierende Wirkung bekannt.

Spezifische Zielorgan Toxizität

Bei einmaliger Aufnahme – Kann die Atmungsorgane reizen.

Bei wiederholter Aufnahme – Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

Aspirationsgefahr

Ist nicht als aspirationsgefährlich einzustufen.

CMR-Wirkungen

Kanzerogenität

Keine kanzerogene Wirkung bekannt.

Mutagenität

Keine mutagene Wirkung bekannt.

Reproduktionstoxizität

Keine repro-toxische Wirkung bekannt.

Endokrinschädliche Eigenschaften

Enthält keinen endokrinen Disruptor (EDC) in einer Konzentration von $\geq 0,1\%$.

11.2 Allgemeine Bemerkungen

Keine weiteren relevanten Informationen verfügbar.

Abschnitt 12: Umweltbezogene Angaben

12.1 Toxizität

Es sind keine Daten für die Mischung verfügbar.

Ökotoxizität

Stoff:	CAS-Nr.:	Ökotoxizität
Salpetersäure	7697-37-2	Akute Krustentiertoxizität LC50: 180 mg/l/48 h (Nordseegarnele. [Crangon crangon.])

Angaben stammen aus der Gestis Stoffdatenbank+Fremdsicherheitsdatenblättern

12.2 Persistenz und Abbaubarkeit

Die Methoden zur Bestimmung der biologischen Abbaubarkeit sind bei anorganischen Substanzen nicht anwendbar.

12.3 Bioakkumulationspotential

Kein Hinweis auf Bioakkumulationspotential.

12.4 Mobilität

Keine relevanten Informationen verfügbar.

12.5 Ergebnis der PBT- und vPvB-Beurteilung

Dieser Stoff erfüllt nicht die Kriterien für eine Einstufung als PBT oder vPvB.

12.6 Endokrinschädliche Eigenschaften

Enthält keinen endokrinen Disruptor (EDC) in einer Konzentration von $\geq 0,1\%$.

12.7 Weitere ökologische Hinweise

Nicht in die Kanalisation oder Gewässer gelangen lassen. Nicht in den Untergrund/Erdreich gelangen lassen. Verursacht keine biologische Sauerstoffzehrung.

Schädigende Wirkung durch pH-Verschiebung.

12.8 Sonstige Hinweise

Wassergefährdungsklasse 1 (Selbsteinstufung): schwach wassergefährdend

Abschnitt 13: Hinweise zur Entsorgung

13.1 Sachgerechte Entsorgung

Sachgerechte Entsorgung/Produkt

Entsorgung gemäß EG-Richtlinien 75/442/EWG und 91/689/EWG über Abfälle und über gefährliche Abfälle in den jeweils aktuellen Fassungen.

Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.

Kleinstmengen können nach Neutralisation (z.B. mit „Neutralizer mit Farbindikator“, Herst. SK-Chemie) der Abwasserbehandlung zugeführt werden.

Vorschlagsliste für Abfallschlüssel/Abfallbezeichnungen gemäß AVV

Vorschlagsliste für Abfallschlüssel/Abfallbezeichnungen gemäß AVV

Die Abfallschlüsselnummern sind seit dem 1.1.1999 nicht nur Produkt-, sondern im Wesentlichen anwendungsbezogen.

Die Zuordnung der Abfallschlüsselnummern erfolgt entsprechend des Europäischen Abfallartenkataloges (EAK) branchen-/prozess-spezifisch

unser Vorschlag: 06 01 06* andere Säuren oder 20 01 14* Säuren

Verpackungen

Restentleerte und gereinigte Flaschen können der Wiederverwertung zugeführt werden.

Ungereinigte Verpackungen:

Entsorgung gemäß den behördlichen Vorschriften.

Abschnitt 14: Angaben zum Transport

14.1 UN-Nummer

ADR, IMDG, ICAO-TI UN 3264

14.2 Ordnungsgemäße UN-Versandbezeichnung

ADR: 3264 ÄTZENDER SAURER ANORGANISCHER FLÜSSIGER STOFF, N.A.G.
(SALPETERSÄURE)

IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

ICAO-TI: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)

14.3 Transportgefahrenklassen

ADR:

Klasse 8 (C1) Ätzende Stoffe

Gefahrzettel: 8

IMDG, ICAO-TI:

Klasse 8 Ätzende Stoffe

Gefahrzettel: 8

14.4 Verpackungsgruppe

ADR, IMDG, ICAO-TI: II

14.5 Umweltgefahren

Das Produkt enthält umweltgefährdende Stoffe:

Marine pollutant: nein

Besondere Kennzeichnung (ADR): -

14.6 Besondere Vorsichtsmaßnahmen für den Verwender

Achtung: Ätzende Stoffe

Nummer zur Kennzeichnung der Gefahr (Kemler-Zahl): 80

EMS-Nr.: F-A, S-B

Segregation groups: Acids

Staukategorie: B - SW2

14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Abkommens und gemäß IBC-Code

Nicht anwendbar

14.8 Weitere Angaben

ADR:

Sondervorschrift: 274

Begrenzte Menge (LQ): 1 Liter

Freigestellte Menge (EQ): Code E2 Höchste Menge je Innenverpackung: 30 ml
Höchste Menge je Außenverpackung: 500 ml

Beförderungskategorie: 2
Tunnelbeschränkungscode: E

IMDG:
Limited quantities (LQ): 1 L
Excepted quantities (EQ): Code: E2 Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation": UN3264, ÄTZENDER SAURER ANORGANISCHER FLÜSSIGER
STOFF, N.A.G. (SALPETERSÄURE), 8, II, (E)

Abschnitt 15: Rechtsvorschriften

15.1 Vorschriften zur Sicherheit, Gesundheits- und Umweltschutz sowie spezifische Rechtsvorschriften für den Stoff oder das Gemisch EU-Vorschriften

RL 1999/13/EG über die Begrenzung von Emissionen flüchtiger organischer Verbindungen (VOC Richtlinie)

Nicht relevant

Verordnung (EG) Nr. 2037/2000 über Stoffe, die zum Abbau der Ozonschicht führen

Nicht relevant

Verordnung (EG) Nr. 850/2004 über persistente organische Schadstoffe

Nicht relevant

Verordnung (EG) Nr. 689/2008 über Aus- und Einfuhr gefährlicher Chemikalien

Nicht relevant

Verordnung (EG) Nr. 648/2004 über Detergenzien (Detergenzienverordnung)

Nicht relevant

Verordnung (EG) Nr. 1148/2019 über die Vermarktung und Verwendung von Ausgangsstoffen für Explosivstoffe

Abgabebeschränkungen und -bedingungen sind zu beachten. Keine Abgabe an Privat Personen.

Verordnung 2012/18/EU

Namentlich aufgeführte gefährliche Stoffe - Anhang I: keiner der Inhaltsstoffe ist enthalten

Seveso Kategorie: H2 akut toxisch

Mengenschwelle für die Anwendung in Betrieben der unteren Klasse: 50 Tonnen

Mengenschwelle für die Anwendung in Betrieben der oberen Klasse: 200 Tonnen

Beschränkungen gemäß der Verordnung (EG) Nr. 1907/2006

Anhang XVII, R3, R75 (gilt für Einzelbestandteile der Mischung)

Besonders besorgniserregende Stoffe (SVHC) gemäß REACH, Artikel 57

Kein Bestandteil ist gelistet.

Hinweise zur Beschäftigungsbeschränkung

Richtlinie 94/33/EG über den Jugendarbeitsschutz. Beschäftigungsbeschränkungen nach der Mutterschutzrichtlinie (92/85/EWG) für werdende oder stillende Mütter beachten.

Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen

Nur für den berufsmäßigen Verwender.

Nationale Vorschriften (D)

Die nationalen Rechtsvorschriften sind zusätzlich zu beachten!

Chemikalienverbotsverordnung (ChemVerbotsV)

Produkt unterliegt der Anlage 2 der ChemVerbotsV

Lagerklasse nach TRGS 510

6.1 D Nicht brennbare, akut toxische Kat. 3 / giftige oder chronisch wirkende Gefahrstoffe.

Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV)

schwach wassergefährdend (WGK 1)

15.2 Stoffsicherheitsbeurteilung

Eine Stoffsicherheitsbeurteilung wurde für diese Mischung nicht durchgeführt.

Stoffsicherheitsbeurteilungen für Stoffe in dieser Mischung wurden nicht durchgeführt.

Abschnitt 16: Sonstige Angaben

16.1 Gefahrenhinweise unter Kapitel 3

Verordnung (EG) Nr. 1272/2008

H272 Kann Brand verstärken; Oxidationsmittel.

H290 Kann gegenüber Metallen korrosiv sein.

H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

H318 Verursacht schwere Augenschäden.

H331 Giftig beim Einatmen

16.2 Datenquellen

Angaben stammen aus Nachschlagewerken und der Literatur sowie den Herstellerangaben der Lieferanten.

16.3 Weitere Informationen

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse. Sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

Die Informationen sollen Ihnen Anhaltspunkte für den sicheren Umgang mit dem in diesem Sicherheitsdatenblatt genannten Produkt bei Lagerung, Verarbeitung, Transport und Entsorgung geben. Die Angaben sind nicht übertragbar auf andere Produkte. Soweit das Produkt mit anderen Materialien vermengt, vermischt oder verarbeitet wird, oder einer Bearbeitung unterzogen wird, können die Angaben in diesem Sicherheitsdatenblatt, soweit sich hieraus nicht ausdrücklich etwas anderes ergibt, nicht auf das so gefertigte neue Material übertragen werden.

16.4 Legende und Begriffserklärung

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 (internationale Zivilluftfahrt-Organisation)

ICAO-IT: Technical instructions for the safe transport of dangerous goods by air (Technische Anweisungen für die

sichere Beförderung gefährlicher Güter im Luftverkehr)

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

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: Persistent, Bioakkumulierend, Toxisch

vPvB: very Persistent and very Bioaccumulative

Ox. Liq. 3: Oxidising Liquids, Hazard Category 3

Met. Corr. 1: Corrosive to metals, Hazard Category 1

Skin Corr. 1A: Skin corrosive/irritation, Hazard Category 1A

Skin Corr. 1B: Skin corrosive/irritation, Hazard Category 1B

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

*Daten gegenüber der Vorversion geändert.