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

1.1. Product identifier

Kroll

UFI: JKHP-3QA3-SUG2-099S

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

Use of the substance/mixture

Laboratory chemical

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name:	Schmitz-Metallographie GmbH	
Street:	Kaiserstraße 100	
Place:	D-52134 Herzogenrath	
Telephone:	02407 / 568296-0	Telefax: 02407 / 568296-9
E-mail:	info@schmitz-metallographie.de	
Contact person:	Herr Füllmann	
E-mail:	info@schmitz-metallographie.de	
Internet:	www.schmitz-metallographie.de	

1.4. Emergency telephone number:

Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240 (24h)

Further Information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Met. Corr. 1; H290
Acute Tox. 4; H312
Acute Tox. 4; H302
Skin Corr. 1; H314
Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

nitric acid
Hydrofluoric acid ... %

Signal word: Danger

Pictograms:

Hazard statements

H290	May be corrosive to metals.
H302+H312	Harmful if swallowed or in contact with skin.
H314	Causes severe skin burns and eye damage.

EUH071	Corrosive to the respiratory tract.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing and eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P501	Dispose of contents/container to local/regional/national/international regulations.

2.3. Other hazards

The substances in the mixture (> 0.1%) do not meet the PBT/vPvB criteria according to REACH, annex XIII. This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria. This product does not contain a substance (> 0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7697-37-2	nitric acid			1 - < 3 %
	231-714-2	007-030-00-3	01-2119487297-23	
	Ox. Liq. 3, Met. Corr. 1, Acute Tox. 3, Skin Corr. 1A; H272 H290 H331 H314 EUH071			
7664-39-3	Hydrofluoric acid ... %			0.3 - < 0.5 %
	231-634-8	009-003-00-1	01-2119458860-33	
	Acute Tox. 1, Acute Tox. 2, Acute Tox. 2, Skin Corr. 1A, Eye Dam. 1; H310 H330 H300 H314 H318			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
7697-37-2	231-714-2	nitric acid	1 - < 3 %
	inhalation: ATE 2,65 mg/l (vapours) Ox. Liq. 3; H272: >= 65 - 100 Skin Corr. 1A; H314: >= 20 - 100 Skin Corr. 1B; H314: >= 5 - < 20		
7664-39-3	231-634-8	Hydrofluoric acid ... %	0.3 - < 0.5 %
	inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); dermal: ATE = 5 mg/kg; oral: ATE = 5 mg/kg Skin Corr. 1A; H314: >= 7 - 100 Skin Corr. 1B; H314: >= 1 - < 7 Eye Irrit. 2; H319: >= 0,1 - < 1		

Further Information

Product does not contain listed SVHC substances > 0.1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Remove contaminated, saturated clothing immediately.

After inhalation

In case of inhaling spray mists, consult a doctor immediately and show him box or label.
Provide fresh air. If victim is at risk of losing consciousness, position and transport on their side.

After contact with skin

Remove contaminated clothing immediatley and dispose off safely. After contact with skin, wash immediately with: Water. Immediately apply calcium gluconate gel (2.5% strength) and rub gently. If unavailable: Apply wet envelopes with 10% calcium gluconate solution. Seek medical advice immediately.

After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps. In all cases of doubt, or when symptoms persist, seek medical advice.

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

Hydrofluoric acid (HF): Eyes: Irritation, ischaemia, edema of the stroma and subsequent vascularization into the cornea (persistence lasting several weeks), corneal opacity Skin: slight irritative immediate action (nevertheless, F. can penetrate deeply and damage subcutaneous tissue); Pallor or erythema, swelling; Later possibly formation of blisters, blackening of the tissue under fingernails; Deep pain (within 20 min. To approx. 24 h); Possible local resorptive effects: carpal tunnel syndrome, non-purulent tendon synovitis, flexor-tendo contractures; Systemic effects possible with large area / sustained contact or skin Inhalation: serious effects may only be expected after exposure to aerosols or vapors of hot solutions: strong mucous membrane irritation, tear secretion, upper respiratory tract pain, obstruction, dyspnoea, haemorrhage, toxic pulmonary edema; Resorptivwirkungen Ingestion: severe irritation to burned mucous membranes, haemorrhages in the digestive tract, abdominal pain, nausea, emesis, diarrhea; Rapid entry of systemic effects Absorption: metabolic disorder (hypocalcaemia / hyperkalemia, hypomagnesemia), cardiac dysfunction (tachycardia, ventricular fibrillation, blood pressure drop), muscular / nervous system (unconsciousness / coma, tremor, tetaniform convulsions).

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

Hydrofluoric acid has a strong local and systemic toxicity. 10% Hydrofluoric Acid (F) can primarily cause relatively small stimuli, which can easily lead to an underestimation of the still high risk. In any case, careful decontamination, treatment and follow-up are required. After short-term skin contact with 10% F. and in time (immediately) started decontamination, the multiple daily daily intake of calcium gluconate gel as therapy may be sufficient. Injection of the contaminated areas or deep injections or even an intraarterial application of calcium gluconate are, inter alia, not mandatory After inhalation of vapors / aerosols, give oxygen as soon as possible. In addition, the inhalation of a 2.5-3% calcium gluconate soln. In physiological saline solution via a nebulizer.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Fluorhydric acid. Nitrogen oxides (NOx).

5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes. In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Remove all sources of ignition. Remove persons to safety. Provide adequate ventilation.
Do not breathe gas/fumes/vapour/spray.
Wear personal protection equipment. (See section 8.)

For non-emergency personnel

Wear personal protection equipment (refer to section 8).

For emergency responders

No special measures are necessary.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.
Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal .

For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

Other information

Conditions to avoid: generation/formation of aerosols
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal .
Clear contaminated areas thoroughly.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid exposure.
Personal protection equipment (refer to section 8)
Provide adequate ventilation as well as local exhaustion at critical locations.
Use extractor hood (laboratory).

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

When using do not eat, drink or smoke.

Further information on handling

General protection and hygiene measures: See section 8.
Always close containers tightly after the removal of product. Keep/Store only in original container.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed and in a well-ventilated place. Keep in a cool place.
Unsuitable materials for Container: Base metals and alloys . Glass.
Make sure spills can be contained (e.g. sump pallets or kerbed areas).

Hints on joint storage

Do not store together with: Explosives. Gas. Oxidizing liquids. Oxidizing solids. Self-reactive substances and mixtures. Organic peroxides. Ammonium nitrate. Combustible toxic substances. Non-combustible toxic substances. Radioactive substances. Infectious substances.

Further information on storage conditions

Recommended storage temperature: 20 °C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
7664-39-3	Hydrogen fluoride (as F)	1.8	1.5		TWA (8 h)	
		3	2.5		STEL (15 min)	
7697-37-2	Nitric acid	1	2.6		STEL (15 min)	

Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
7664-39-3	Hydrogen fluoride	Fluoride	2 mg/L	Urine	Prior to shift

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
7697-37-2	nitric acid			
Worker DNEL, long-term		inhalation	local	2,6 mg/m³
Consumer DNEL, long-term		inhalation	local	1,3 mg/m³
Consumer DNEL, acute		inhalation	local	1,3 mg/m³
7664-39-3	Hydrofluoric acid ... %			
Worker DNEL, acute		inhalation	systemic	2,5 mg/m³
Worker DNEL, acute		inhalation	local	2,5 mg/m³
Worker DNEL, long-term		inhalation	systemic	1,5 mg/m³
Worker DNEL, long-term		inhalation	local	0,0015 mg/m³
Consumer DNEL, acute		inhalation	systemic	0,03 mg/m³
Consumer DNEL, acute		oral	systemic	0,01 mg/kg bw/day
Consumer DNEL, acute		inhalation	local	1,25 mg/m³
Consumer DNEL, long-term		oral	systemic	0,01 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,03 mg/m³
Consumer DNEL, long-term		inhalation	local	0,2 mg/m³

PNEC values

CAS No	Substance	
Environmental compartment		Value

7664-39-3	Hydrofluoric acid ... %
Freshwater	0,9 mg/l
Marine water	0,9 mg/l
Micro-organisms in sewage treatment plants (STP)	51 mg/l
Soil	11 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.
Use extractor hood (laboratory).

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection. EN ISO 16321-1:2022

Hand protection

Wear suitable gloves.
Suitable material:
FKM (fluororubber). - Thickness of glove material: 0,4 mm
Breakthrough time >= 8 h
Butyl rubber. - Thickness of glove material: 0,5 mm
Breakthrough time >= 8 h
CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm
Breakthrough time >= 8 h
NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm
Breakthrough time >= 8 h
PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm
Breakthrough time >= 8 h
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.
Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Suitable protective clothing: Lab apron.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.
Respiratory protection necessary at:
-Exceeding exposure limit values
-Insufficient ventilation and aerosol or mist formation
Suitable respiratory protective equipment: Combination filtering device (EN 14387) type EB-P3
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

This material and its container must be disposed of in a safe way.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid	
Colour:	colourless	
Odour:	stinging	
Odour threshold:	not determined	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		~100 °C
Flammability:		not determined
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		not determined
Auto-ignition temperature:		not determined
Decomposition temperature:		not relevant
pH-Value (at 20 °C):		0
Viscosity / kinematic:		not determined
Water solubility:		not determined
Solubility in other solvents		
not determined		
Dissolution rate:		not relevant
Partition coefficient n-octanol/water:		not relevant
Dispersion stability:		not relevant
Vapour pressure: (at 20 °C)		not determined
Density (at 20 °C):		not determined
Bulk density:		not relevant
Relative vapour density:		not determined
Particle characteristics:		not relevant

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

not explosive.

Sustained combustibility:	No data available
Self-ignition temperature	
Solid:	not relevant
Gas:	not relevant

Oxidizing properties

Not oxidizing.

Other safety characteristics

Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	No information available.
Solid content:	not determined
Sublimation point:	not relevant
Softening point:	not relevant
Pour point:	not relevant
Viscosity / dynamic:	not determined
Flow time:	not determined

Further Information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.
Refer to section 10.5.

10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat.

10.5. Incompatible materials

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.

10.6. Hazardous decomposition products

Can be released in case of fire: Fluorhydric acid. Nitrogen oxides (NOx).

SECTION 11: Toxicological information

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

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

Harmful in contact with skin.
Harmful if swallowed.

ATEmix calculated

ATE (oral) 1316 mg/kg; ATE (dermal) 1316 mg/kg; ATE (inhalation vapour) > 50 mg/l; ATE (inhalation dust/mist) > 12,5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7697-37-2	nitric acid				
	inhalation vapour	ATE 2,65 mg/l			
7664-39-3	Hydrofluoric acid ... %				
	oral	ATE 5 mg/kg			
	dermal	ATE 5 mg/kg			
	inhalation vapour	ATE 0,5 mg/l			
	inhalation dust/mist	ATE 0,05 mg/l			

Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage. (On basis of test data)
Serious eye damage/eye irritation: Causes serious eye damage. (On basis of test data)
Corrosive to the respiratory tract.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

Nitric acid:
No evidence for: Carcinogenicity
No evidence for: Developmental toxicity/teratogenicity (NOEL = 400 ppm)
No evidence for: Reproductive toxicity: (NOEL = 700 ppm)
No evidence for: In-vitro mutagenicity

HF:
No evidence for: In-vitro mutagenicity

STOT-single exposure
Based on available data, the classification criteria are not met.

STOT-repeated exposure
Based on available data, the classification criteria are not met.
Nitric acid:
Subchronic inhalative toxicity NOAEC = 2,15 ppm (Rat) Literature information: ECHA Dossier

HF: NOAEC: 1 ppm

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

11.2. Information on other hazards

Endocrine disrupting properties
This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Other information
No data available.

SECTION 12: Ecological information

12.1. Toxicity

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

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
7697-37-2	nitric acid						
	Acute crustacea toxicity	EC50	2.5 mg/l	48 h	Ceriodaphnia spec	ECHA Dossier	
7664-39-3	Hydrofluoric acid ... %						
	Acute algae toxicity	ErC50	81 mg/l	96 h	Skeletonema costatum	ECHA Dossier	
	Acute crustacea toxicity	EC50 mg/l	26-48	48 h	trichoptera aquatic larvae	ECHA Dossier	
	Fish toxicity	NOEC	4 mg/l	21 d	Oncorhynchus mykiss	ECHA Dossier	
	Crustacea toxicity	NOEC	3,7 mg/l	21 d	Daphnia magna	ECHA Dossier	

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
7697-37-2	nitric acid	-0,21

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.
The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.
Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

110105 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); pickling acids; hazardous waste

List of Wastes Code - used product

110105 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); pickling acids; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 1760
14.2. UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (Hydrofluoric acid. Nitric acid.)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8

Classification code:	C9
Special Provisions:	274
Limited quantity:	5 L

Excepted quantity:	E1
Transport category:	3
Hazard No:	80
Tunnel restriction code:	E

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 1760
14.2. UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (Hydrofluoric acid. Nitric acid.)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8

Classification code:	C9
Special Provisions:	274
Limited quantity:	5 L
Excepted quantity:	E1

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1760
14.2. UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (Hydrofluoric acid. Nitric acid.)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8

Marine pollutant:	NO
Special Provisions:	223, 274
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1760
14.2. UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (Hydrofluoric acid. Nitric acid.)
14.3. Transport hazard class(es):	8
14.4. Packing group:	III
Hazard label:	8

Special Provisions:	A3 A803
Limited quantity Passenger:	1 L
Passenger LQ:	Y841
Excepted quantity:	E1
IATA-packing instructions - Passenger:	852
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	856
IATA-max. quantity - Cargo:	60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Safe handling: see section 7
Personal protection equipment: see section 8

14.7. Maritime transport in bulk according to IMO instruments

not relevant

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):
Entry 3, Entry 75

Directive 2010/75/EU on industrial emissions:	not determined
Directive 2004/42/EC on VOC in paints and varnishes:	not determined
Information according to Directive 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

Marketing and use of explosives precursors (Regulation (EU) 2019/ 1148):
This product is regulated by Regulation (EU) 2019/ 1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
REACH 1907/2006 Appendix XVII, No (mixture): 3

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	1 - slightly hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
nitric acid
Hydrofluoric acid ... %

SECTION 16: Other information

Changes

Rev. 1,0; Initial release 28.03.2022
Rev. 2,0; 07.06.2023, Changes in section: 1 - 16.
Rev. 3,0; 27.01.2026, Changes in section: 16; 27.01.2026

Abbreviations and acronyms

Ox. Liq. 3: Oxidising liquids, hazard category 3
Met. Corr. 1: Corrosive to metals, hazard category 1
Acute Tox. 1: Acute toxicity, 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 corrosion, sub-category 1A
Skin Corr. 1: Skin corrosion, hazard category 1
Eye Dam. 1: Serious eye damage, hazard category 1
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging of substances and mixtures

DNEL: Derived No Effect Level
d: day(s)
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European LIst of Notified Chemical Substances
ECHA: European Chemicals Agency
EWC: European Waste Catalogue
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
h: hour
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect concentration
NLP: No-Longer Polymers
N/A: not applicable
OECD: Organisation for Economic Co-operation and Development
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
REACH: Registration, Evaluation, Authorisation of Chemicals
SVHC: substance of very high concern
TRGS: Technische Regeln für Gefahrstoffe
UN: United Nations
VOC: Volatile Organic Compounds
WGK: Water Hazard Class (Germany)

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Acute Tox. 4; H312	Calculation method
Acute Tox. 4; H302	Calculation method
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	On basis of test data

Relevant H and EUH statements (number and full text)

H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H300	Fatal if swallowed.
H302	Harmful if swallowed.
H302+H312	Harmful if swallowed or in contact with skin.
H310	Fatal in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H331	Toxic if inhaled.

EUH071 Corrosive to the respiratory tract.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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