# Safety Data Sheet

according to UK REACH Regulation

## Alcoholic nitric acid, 3% Nital



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

### 1.1. Product identifier

Alcoholic nitric acid, 3% Nital

**Further trade names**

Alkoholische Salpetersäure 3% Nital / Alcoholic nitric acid, 3% Nital
order number 92002597 - 1 L

UFI: FXA8-R7Q6-E99D-XSAG

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

**Use of the substance/mixture**

Reagents and laboratory chemicals (Etching agent)
Restricted to professional users.

### 1.3. Details of the supplier of the safety data sheet

| | |
|---|---|
| Company name: | ATM Qness GmbH |
| Street: | Emil-Reinert-Straße 2 |
| Place: | D-57636 Mammelzen |
| Telephone: | +49 (0) 2681 95390 |
| E-mail: | info@qatm.com |
| Contact person: | info@qatm.com |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Regulation (EC) No 1272/2008**

Flam. Liq. 2; H225
Met. Corr. 1; H290
Skin Irrit. 2; H315
Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

No need for classification as corrosive in spite of the extreme pH.

### 2.2. Label elements

**Regulation (EC) No 1272/2008**

**Hazard components for labelling**

nitric acid

**Signal word:** Danger

**Pictograms:**

**Hazard statements**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H290 | May be corrosive to metals. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |

**Precautionary statements**

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |

| | |
|---|---|
| P280 | Wear protective gloves and eye protection/face protection. |
| 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. |
| P370+P378 | In case of fire: Use sand, extinguishing powder or alcohol-resistant foam to extinguish. |
| P403+P235 | Store in a well-ventilated place. Keep cool. |

### 2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## 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) | | | |
| 64-17-5 | ethanol; ethyl alcohol | | | 90 - < 95 % |
| | 200-578-6 | 603-002-00-5 | 01-2119457610-43 | |
| | Flam. Liq. 2, Eye Irrit. 2; H225 H319 | | | |
| 7697-37-2 | nitric acid | | | 3 % |
| | 231-714-2 | 007-030-00-3 | | |
| | Ox. Liq. 3, Met. Corr. 1, Acute Tox. 3, Skin Corr. 1A, Eye Dam. 1; H272 H290 H331 H314 H318 EUH071 | | | |
| 78-93-3 | butanone; ethyl methyl ketone | | | < 1 % |
| | 201-159-0 | 606-002-00-3 | 01-2119457290-43 | |
| | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066 | | | |

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 | | |
| 64-17-5 | 200-578-6 | ethanol; ethyl alcohol | 90 - < 95 % |
| | inhalation: LC50 = 124,7 mg/l (vapours); oral: LD50 = 10470 mg/kg Eye Irrit. 2; H319: >= 50 - 100 | | |
| 7697-37-2 | 231-714-2 | nitric acid | 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 | | |

**Further Information**

No need for classification as corrosive in spite of the extreme pH.
Specific concentration limit:
CAS No. 7697-37-2:
Skin Corr. 1A; H314: C = 20 %
Skin Corr. 1B; H314: 5 % = C < 20 %

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information**

When in doubt or if symptoms are observed, get medical advice.

**After inhalation**

Remove casualty to fresh air and keep warm and at rest. If experiencing respiratory symptoms: Call a doctor.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Rinse mouth. Observe risk of aspiration if vomiting occurs. Never give anything by mouth to an unconscious person or a person with cramps. Call a doctor if you feel unwell. Rinse mouth.

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

Dizziness, Inebriation, Narcotic effects
Vomiting

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

Treat symptomatically.

## SECTION 5: Firefighting measures

**5.1. Extinguishing media**

**Suitable extinguishing media**

alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO2), Water spray jet
Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

Full water jet

**5.2. Special hazards arising from the substance or mixture**

Highly flammable. Vapours can form explosive mixtures with air.
In case of fire may be liberated: Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx), Pyrolysis products, toxic

**5.3. Advice for firefighters**

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

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

**General advice**

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Evacuate area.

**For non-emergency personnel**

Remove all sources of ignition. Provide adequate ventilation. Use personal protection equipment.

**For emergency responders**

Wear personal protection equipment (refer to section 8).

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

**For containment**

Stop leak if safe to do so. Cover drains.

**For cleaning up**

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

**Other information**

Use non-sparking tools.
Clean contaminated articles and floor according to the environmental legislation.

### 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**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.
Avoid: aerosol or mist formation
Use personal protection equipment.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.
Vapours can form explosive mixtures with air. Use non-sparking tools.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

### 7.2. Conditions for safe storage, including any incompatibilities

**Requirements for storage rooms and vessels**

Keep container tightly closed. Store in a well-ventilated place. Keep cool. Keep/Store only in original container.

**Hints on joint storage**

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances. metals.

**Further information on storage conditions**

Protect against: Heat

### 7.3. Specific end use(s)

Reagents and laboratory chemicals (Etching agent)
Restricted to professional users.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Exposure limits (EH40)**

| CAS No | Substance | ppm | mg/m³ | fibres/ml | Category | Origin |
|---|---|---|---|---|---|---|
| 78-93-3 | Butan-2-one (methyl ethyl ketone) | 200 | 600 | | TWA (8 h) | WEL |
| | | 300 | 899 | | STEL (15 min) | WEL |
| 64-17-5 | Ethanol | 1000 | 1920 | | TWA (8 h) | WEL |
| 7697-37-2 | Nitric acid | 1 | 2.6 | | STEL (15 min) | WEL |
| 67-63-0 | Propan-2-ol | 400 | 999 | | TWA (8 h) | WEL |
| | | 500 | 1250 | | STEL (15 min) | WEL |

**Biological Monitoring Guidance Values (EH40)**

| CAS No | Substance | Parameter | Value | Test material | Sampling time |
|---|---|---|---|---|---|
| 78-93-3 | Butan-2-one | butan-2-one | 70 µmol/L | urine | Post shift |

**DNEL/DMEL values**

| CAS No | Substance | | | |
|---|---|---|---|---|
| DNEL type | | Exposure route | Effect | Value |
| 64-17-5 | ethanol; ethyl alcohol | | | |
| Worker DNEL, long-term | | dermal | systemic | 343 mg/kg bw/day |
| Worker DNEL, long-term | | inhalation | systemic | 950 mg/m³ |
| Consumer DNEL, long-term | | oral | systemic | 87 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 114 mg/m³ |
| Consumer DNEL, long-term | | dermal | systemic | 206 mg/kg bw/day |
| 78-93-3 | butanone; ethyl methyl ketone | | | |
| Worker DNEL, long-term | | inhalation | systemic | 600 mg/m³ |
| Worker DNEL, long-term | | dermal | systemic | 1161 mg/kg bw/day |
| Consumer DNEL, long-term | | inhalation | systemic | 106 mg/m³ |
| Consumer DNEL, long-term | | dermal | systemic | 412 mg/kg bw/day |
| Consumer DNEL, long-term | | oral | systemic | 31 mg/kg bw/day |

**PNEC values**

| CAS No | Substance | |
|---|---|---|
| Environmental compartment | | Value |
| 64-17-5 | ethanol; ethyl alcohol | |
| Freshwater | | 0,96 mg/l |
| Freshwater (intermittent releases) | | 2,75 mg/l |
| Marine water | | 0,79 mg/l |
| Freshwater sediment | | 3,6 mg/kg |
| Marine sediment | | 2,9 mg/kg |
| Secondary poisoning | | 0,38 mg/kg |
| Microorganisms in sewage treatment plants (STP) | | 580 mg/l |
| Soil | | 0,63 mg/kg |
| 78-93-3 | butanone; ethyl methyl ketone | |
| Freshwater | | 55,8 |
| Freshwater (intermittent releases) | | 55,8 |
| Marine water | | 55,8 |
| Freshwater sediment | | 284,74 |
| Marine sediment | | 284,7 |
| Secondary poisoning | | 1000 |
| Microorganisms in sewage treatment plants (STP) | | 709 |
| Soil | | 22,5 |

**8.2. Exposure controls**



**Appropriate engineering controls**

Provide adequate ventilation as well as local exhaustion at critical locations.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles (EN 166)

**Hand protection**

Wear suitable gloves. (EN ISO 374)
Suitable material: (Breakthrough time: >= 480 min)
FKM (fluoro rubber) - Thickness of the glove material: 0,4 mm

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

Respiratory protection necessary at: insufficient ventilation, exceeding exposure limit values, aerosol or mist formation

**Thermal hazards**

Flame-retardant protective clothing. Wear anti-static footwear and clothing

**Environmental exposure controls**

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state: | Liquid |
| Colour: | colourless |
| Odour: | characteristic |
| Odour threshold: | not determined |
| Melting point/freezing point: | -114,5 °C |
| Boiling point or initial boiling point and boiling range: | 78 °C |
| Flammability: | Highly flammable |
| Lower explosion limits: | 3,5 vol. % |
| Upper explosion limits: | 15 vol. % |
| Flash point: | 13 °C |
| Auto-ignition temperature: | 425 °C |
| Decomposition temperature: | not determined |
| pH-Value (at 20 °C): | < 1 |
| Viscosity / kinematic: | not determined |
| Water solubility: (at 20 °C) | 1 g/l |

Solubility in other solvents
not determined

| | |
|---|---|
| Partition coefficient n-octanol/water: | not determined |
| Vapour pressure: (at 20 °C) | 59 hPa |
| Density (at 20 °C): | 0,8 g/cm³ |
| Relative vapour density: | not determined |
| Particle characteristics: | not applicable |

### 9.2. Other information

**Information with regard to physical hazard classes**

Explosive properties
Vapours can form explosive mixtures with air.

| | |
|---|---|
| Sustained combustibility: | Sustained combustibility |

**Other safety characteristics**

| | |
|---|---|
| Solvent content: | 97 % |

**Further Information**

No information available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Highly flammable. Corrosive to metals

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

Vapours can form explosive mixtures with air.

### 10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### 10.5. Incompatible materials

Oxidizing agent. Pyrophoric or self-heating substances. metals.

### 10.6. Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx), Pyrolysis products, toxic

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes

**Acute toxicity**

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

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 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 |
| 64-17-5 | ethanol; ethyl alcohol | | | | |
| | oral | LD50 10470 mg/kg | Rat | Pre-supplier/manufacturer | |
| | inhalation (4 h) vapour | LC50 124,7 mg/l | Rat | Pre-supplier/manufacturer | |
| 7697-37-2 | nitric acid | | | | |
| | inhalation vapour | ATE 2,65 mg/l | | | |

**Irritation and corrosivity**

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/eye irritation: Causes serious eye damage.
No need for classification as corrosive in spite of the extreme pH.

**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.

**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.

**Aspiration hazard**

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

**Information on likely routes of exposure**

oral, Skin contact, Eye contact.

Inhalation: aerosol or mist formation

### 11.2. Information on other hazards

**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Other information**

No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Based on available data, the classification criteria are not met.
Damaging effect on aquatic ecosystems possible due to change in the pH value.

| CAS No | Chemical name | | | | | |
|---|---|---|---|---|---|---|
| | Aquatic toxicity | Dose | [h] \| [d] | Species | Source | Method |
| 64-17-5 | ethanol; ethyl alcohol | | | | | |
| | Acute crustacea toxicity | EC50 9268 - 14221 mg/l | 48 h | Daphnia magna | IUCLID | |
| 78-93-3 | butanone; ethyl methyl ketone | | | | | |
| | Acute fish toxicity | LC50 2993 mg/l | 96 h | Pimephales promelas (fathead minnow) | Pre-supplier/manufacturer | |
| | Acute algae toxicity | ErC50 2029 mg/l | 96 h | Pseudokirchneriella subcapitata | Pre-supplier/manufacturer | |
| | Acute crustacea toxicity | EC50 308 mg/l | 48 h | Daphnia magna (Big water flea) | Pre-supplier/manufacturer | |

### 12.2. Persistence and degradability

The product has not been tested.

| CAS No | Chemical name | | | |
|---|---|---|---|---|
| | Method | Value | d | Source |
| | Evaluation | | | |
| 64-17-5 | ethanol; ethyl alcohol | | | |
| | Biodegradation | 84 % | 20 | Manufacturer |
| | Readily biodegradable (according to OECD criteria). | | | |

### 12.3. Bioaccumulative potential

The product has not been tested.

**Partition coefficient n-octanol/water**

| CAS No | Chemical name | Log Pow |
|---|---|---|
| 64-17-5 | ethanol; ethyl alcohol | -0,35 |
| 7697-37-2 | nitric acid | -0,21 |
| 78-93-3 | butanone; ethyl methyl ketone | 0,3 |

### 12.4. Mobility in soil

The product has not been tested.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

### 12.7. Other adverse effects

Damaging effect on aquatic ecosystems possible due to change in the pH value.

**Further information**

Before discharge into sewage plants the product normally needs to be neutralised.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal recommendations**

Collect the waste separately. Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**Contaminated packaging**

Non-contaminated packages may be recycled. 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 2924 |
| **14.2. UN proper shipping name:** | FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol; ethyl alcohol, nitric acid [C<= 70 %]) |
| **14.3. Transport hazard class(es):** | 3 |
| **14.4. Packing group:** | II |
| Hazard label: | 3+8 |


| | |
|---|---|
| Classification code: | FC |
| Special Provisions: | 274 |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |
| Transport category: | 2 |
| Hazard No: | 338 |
| Tunnel restriction code: | D/E |

**Inland waterways transport (ADN)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 2924 |
| **14.2. UN proper shipping name:** | FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol; ethyl alcohol, nitric acid [C<= 70 %]) |
| **14.3. Transport hazard class(es):** | 3 |
| **14.4. Packing group:** | II |
| Hazard label: | 3+8 |


| | |
|---|---|
| Classification code: | FC |
| Special Provisions: | 274 |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |

**Marine transport (IMDG)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 2924 |
| **14.2. UN proper shipping name:** | FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol; ethyl alcohol, nitric acid [C<= 70 %]) |
| **14.3. Transport hazard class(es):** | 3 |
| **14.4. Packing group:** | II |
| Hazard label: | 3+8 |


| | |
|---|---|
| Marine pollutant: | - |
| Special Provisions: | 274 |
| Limited quantity: | 1 L |

| | |
|---|---|
| Excepted quantity: | E2 |
| EmS: | F-E, S-C |

**Air transport (ICAO-TI/IATA-DGR)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 2924 |
| **14.2. UN proper shipping name:** | FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ethanol; ethyl alcohol, nitric acid [C<= 70 %]) |
| **14.3. Transport hazard class(es):** | 3 |
| **14.4. Packing group:** | II |
| Hazard label: | 3+8 |


| | |
|---|---|
| Special Provisions: | A3 |
| Limited quantity Passenger: | 0.5 L |
| Passenger LQ: | Y340 |
| Excepted quantity: | E2 |
| IATA-packing instructions - Passenger: | 352 |
| IATA-max. quantity - Passenger: | 1 L |
| IATA-packing instructions - Cargo: | 363 |
| IATA-max. quantity - Cargo: | 5 L |

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Warning: Flammable liquids! Vapours can form explosive mixtures with air. Corrosive to metals.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

**Other applicable information**

Hazchem code: •3WE

## 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 40, Entry 75

| | |
|---|---|
| Directive 2010/75/EU on industrial emissions: | < 100 % |
| Information according to Directive 2012/18/EU (SEVESO III): | P5c FLAMMABLE LIQUIDS |

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.

**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**

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

## SECTION 16: Other information

**Abbreviations and acronyms**

Ox. Liq. 3: Oxidising liquids, hazard category 3
Met. Corr. 1: Corrosive to metals, hazard category 1
Flam. Liq. 2: Flammable liquids, hazard category 2
Acute Tox. 3: Acute toxicity, hazard category 3
Skin Corr. 1A: Skin corrosion, sub-category 1A
Skin Irrit. 2: Skin irritation, hazard category 2
Eye Dam. 1: Serious eye damage, hazard category 1
Eye Irrit. 2: Eye irritation, hazard category 2
STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging
EU: European Union
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
REACh: Registration, Evaluation and Authorization of Chemicals
UN: United Nations
PBT: Persistent, Bioaccumulative, Toxic
SVHC: Substance of Very High Concern
vPvB: very Persistent, very Bioaccumulative
ATE: Acute Toxicity Estimates
BCF: Bio-Concentration Factor
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level
PNEC: Predicted No Effect Concentration
VOC: Volatile Organic Compounds
DIN: Deutsches Institut für Normung e.V. (German Institute for Standardization)
EN: European Standard
ISO: International Organization for Standardization
IUCLID: International Uniform ChemicaL Information Database
LC50: Lethal Concentration, 50 %
LD50: Lethal Dose, 50 %
LL50: Lethal Loading, 50 %
OECD: Organisation for Economic Co-operation and Development
EC50: Effective Concentration 50 %
M-Faktor: Multiplication Factor
EL50: Effect Loading, 50 %
ErC50: Effective Concentration 50 %, growth rate
M-Faktor: Multiplication Factor
NOEC: No Observed Effect Concentration
ADN: Accord européen relatif au transport international des marchandises Dangereuses par voies de Navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR: Agreement concerning the International Carriage of Dangerous Goods by Road
DGR: Dangerous Goods Regulations
EmS: Emergency Schedules
IATA: International Air Transport Association
IBC: Intermediate Bulk Container
ICAO: International Civil Aviation Organization
IE: Industrial Emissions
IMDG: International Maritime Code for Dangerous Goods
LQ: Limited Quantity
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
MFAG: Medical First Aid Guide

RID: Regulations concerning the International carriage of Dangerous goods by rail
TI: Technical Instructions

**Key literature references and sources for data**

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations). (v.1.2, 2013)

**Classification for mixtures and used evaluation method**

| Classification | Classification procedure |
|---|---|
| Flam. Liq. 2; H225 | On basis of test data |
| Met. Corr. 1; H290 | On basis of test data |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Dam. 1; H318 | Calculation method |

**Relevant H and EUH statements (number and full text)**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H272 | May intensify fire; oxidiser. |
| H290 | May be corrosive to metals. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H336 | May cause drowsiness or dizziness. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| EUH071 | Corrosive to the respiratory tract. |

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.
Observe in addition any national regulations!

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