

## SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

### SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product name : NITAL 5%  
Product code : 17253-17254.  
NITAL 5%  
UFI : 1V40-P0KF-4000-VVDK

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

Etching reagent

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

Registered company name : PRESI S.A.S.  
Address : 11 Rue du vercors.38320.EYBENS.France.  
Telephone : +33 (0)4.76.72.00.21. Fax : +33 (0)4.76.72.05.84.  
presi@presi.com  
www.presi.com

#### 1.4. Emergency telephone number : +33 (0)1.45.42.59.59.

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

### SECTION 2 : HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

##### In compliance with EC regulation No. 1272/2008 and its amendments.

Flammable liquid, Category 2 (Flam. Liq. 2, H225).  
Skin corrosion, Category 1B (Skin Corr. 1B, H314).  
Serious eye damage, Category 1 (Eye Dam. 1, H318).  
Corrosive to the respiratory tract (EUH071).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

#### 2.2. Label elements

##### In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS02



GHS05

Signal Word :

DANGER

Product identifiers :

EC 231-714-2 NITRIC ACID [C ≤ 70 %]

Hazard statements :

H225 Highly flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

EUH071 Corrosive to the respiratory tract.

Precautionary statements - Prevention :

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

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash ... thoroughly after handling.

P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/ ...
Precautionary statements - Response :	
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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/...
P321	Specific treatment (see ... on this label).
P363	Wash contaminated clothing before reuse.
Precautionary statements - Storage :	
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
Precautionary statements - Disposal :	
P501	Dispose of the contents/container in a safe manner and in accordance with local, regional, or national regulations.

### 2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC)  $\geq 0.1\%$  published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances  $\geq 0.1\%$  with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

#### Composition :

Identification	Classification (EC) 1272/2008	Note	%
CAS: 64-17-5 EC: 200-578-6 REACH: 01-2119457610-43-0000 ETHANOL	GHS07, GHS02 Dgr Flam. Liq. 2, H225 Eye Irrit. 2, H319	[1]	50 $\leq$ x % < 100
CAS: 7697-37-2 EC: 231-714-2 REACH: 01-2119487297-23-0000 NITRIC ACID [C $\leq$ 70 %]	GHS06, GHS05, GHS03 Dgr Ox. Liq. 3, H272 Skin Corr. 1A, H314 Acute Tox. 3, H331 EUH:071	B [1]	2.5 $\leq$ x % < 10

#### Specific concentration limits:

Identification	Specific concentration limits	ATE
CAS: 64-17-5 EC: 200-578-6 REACH: 01-2119457610-43-0000 ETHANOL	Eye Irrit. 2B: H319 C $\geq$ 50%	oral: ATE = 10470 mg/kg BW
CAS: 7697-37-2 EC: 231-714-2 REACH: 01-2119487297-23-0000 NITRIC ACID [C $\leq$ 70 %]	Ox. Liq. 3: H272 C $\geq$ 65% Skin Corr. 1A: H314 C $\geq$ 20% Skin Corr. 1B: H314 5% $\leq$ C < 20% Skin Corr. 1C: H314 0% $\leq$ C < 5% Skin Irrit. 2: H315 1% $\leq$ C < 0%	inhalation: ATE = 2.65 mg/l 4h

#### Information on ingredients :

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

[1] Substance for which maximum workplace exposure limits are available.



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## SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

### 4.1. description of first aid measures

#### In the event of exposure by inhalation :

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

Do not proceed with mouth-to-mouth or mouth-to-nose resuscitation. Use the appropriate equipment.

If symptoms persist, call a physician

#### In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

#### In the event of splashes or contact with skin :

Remove any soiled or splashed clothing immediately.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

#### In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

No data available.

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## SECTION 5 : FIREFIGHTING MEASURES

Flammable.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

### 5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.

#### Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive
- halon
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO<sub>2</sub>)

Prevent the effluent of fire-fighting measures from entering drains or waterways.

#### Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet



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

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)
- nitrogen oxide (NO)
- nitrogen dioxide (NO<sub>2</sub>)

### 5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

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

Consult the safety measures listed under headings 7 and 8.

#### For non first aid worker

Eliminate any possible source of ignition and ventilate the premises.

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

#### For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

### 6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

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

Neutralise with an alkaline decontaminant, such as an aqueous solution of sodium carbonate or similar.

If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.

Clean preferably with a detergent, do not use solvents.

### 6.4. Reference to other sections

No data available.

## SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

### 7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

Do not handle in an environment in which particules can pollute the product in its container. Any pollution can lead to a violent reaction of the mixture.

#### Fire prevention :

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Prevent the accumulation of electrostatic charges with connections to earth.

The mixture can become electrostatically charged: always ground when decanting. Wear antistatic shoes and clothing and make floors of non-conductive

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

#### Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Do not inhale vapours.

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Packages which have been opened must be reclosed carefully and stored in an upright position.

#### Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

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

No data available.

#### Storage

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

Avoid accumulation of electrostatic charges.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

#### Packaging

Always keep in packaging made of an identical material to the original.

Suitable packaging materials :

- Polyethylene

#### 7.3. Specific end use(s)

No data available.

## SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Occupational exposure limits :

- European Union (2022/431, 2019/1831, 2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Notes :
7697-37-2	-	-	2.6	1	-

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-17-5		1000 ppm		A3	
7697-37-2	2 ppm	4 ppm			

- Germany - AGW (BAuA - TRGS 900, 02/2022) :

CAS	VME :	VME :	Excess	Notes
64-17-5		200 ppm 380 mg/m3		4(II)
7697-37-2		1 ppm 2.6 mg/m3		

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- Canada / Quebec (Regulations on occupational health and safety) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-17-5		1000 ppm		C3	
7697-37-2	2 ppm 5.2 mg/m3	4 ppm 10 mg/m3			

- France (INRS - Outils 65 / 2021-1849, 2021-1763, decree of 09/12/2021) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
64-17-5	1000	1900	5000	9500	-	84
7697-37-2	-	-	1	2.6	-	-

- Japan (JSOH, Recommendation of occupational exposure limits 2021-2022) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
7697-37-2	2 ppm 5.2 mg/m3				

- Switzerland (Suva 2021) :

CAS	VME	VLE	Valeur plafond	Notations
64-17-5	500 ppm 960 mg/m3	1000 ppm 1920 mg/m3		
7697-37-2	2 ppm 5 mg/m3	2 ppm 5 mg/m3		

- USA / NIOSH IDLH (National Institute for Occupational Safety and Health, Immediately Dangerous to Life or Health Concentrations) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-17-5	-	-	3300	-	-
7697-37-2	2 ppm 5 mg/m3	4 ppm 10 mg/m3			

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
64-17-5	1000 ppm 1920 mg/m3				
7697-37-2		1 ppm 2.6 mg/m3			

**Derived no effect level (DNEL) or derived minimum effect level (DMEL):**

NITRIC ACID [C ≤ 70 %] (CAS: 7697-37-2)

**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

Exposure method:  
Potential health effects:  
DNEL :

**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

Exposure method:  
Potential health effects:  
DNEL :

**Workers.**

Inhalation.  
Short term local effects.  
2.6 mg of substance/m3

Inhalation.  
Long term local effects.  
2.6 mg of substance/m3

**Man exposed via the environment.**

Inhalation.  
Short term local effects.  
1.3 mg of substance/m3

Inhalation.  
Long term local effects.  
1.3 mg of substance/m3

ETHANOL (CAS: 64-17-5)



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**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

Exposure method:  
Potential health effects:  
DNEL :

Exposure method:  
Potential health effects:  
DNEL :

**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

Exposure method:  
Potential health effects:  
DNEL :

Exposure method:  
Potential health effects:  
DNEL :

Exposure method:  
Potential health effects:  
DNEL :

**Workers.**

Dermal contact.  
Long term local effects.  
343 mg/kg body weight/day

Inhalation.  
Long term systemic effects.  
950 mg of substance/m3

Inhalation.  
Short term local effects.  
1900 mg of substance/m3

**Consumers.**

Ingestion.  
Long term systemic effects.  
87 mg/kg body weight/day

Dermal contact.  
Long term systemic effects.  
206 mg/kg body weight/day

Inhalation.  
Long term systemic effects.  
114 mg of substance/m3

Inhalation.  
Short term local effects.  
950 mg of substance/m3

**Predicted no effect concentration (PNEC):**

ETHANOL (CAS: 64-17-5)

Environmental compartment:  
PNEC :

Soil.  
0.63 mg/kg

Environmental compartment:  
PNEC :

Fresh water.  
0.96 mg/l

Environmental compartment:  
PNEC :

Sea water.  
0.79 mg/l

Environmental compartment:  
PNEC :

Intermittent waste water.  
2.75 mg/l

Environmental compartment:  
PNEC :

Fresh water sediment.  
3.6 mg/kg

Environmental compartment:  
PNEC :

Marine sediment.  
2.9 mg/kg

Environmental compartment:  
PNEC :

Waste water treatment plant.  
580 mg/l

Environmental compartment:  
PNEC :

Fresh water predators (oral).  
380 mg/kg

## 8.2. Exposure controls

### Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

#### - Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

#### - Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVC (polyvinyl chloride)
- Butyl Rubber (Isobutylene-isoprene copolymer)

#### - Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Wear suitable protective clothing and, in particular, an apron and boots. These items of clothing shall be maintained in good condition and cleaned after use.

Suitable type of protective boots :

In the event of minor spatter, wear protective boots or half-boots against chemical risks in accordance with standard EN13832-2.

In the event of prolonged contact, wear boots or half-boots with liquid-chemical-resistant and waterproof soles and uppers in accordance with standard EN13832-3.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

#### - Respiratory protection

Avoid inhaling vapors.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.





Type of mask with combined filters :

Wear a half mask in accordance with standard EN140.

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- A2 (Brown)

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

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

#### Physical state

Physical state : Fluid liquid.

#### Colour

Unspecified

#### Odour

Odour threshold : Not stated.

Odour: Alcohol

#### Melting point

Melting point/melting range : Not specified.

#### Freezing point

Freezing point / Freezing range : Not stated.

#### Boiling point or initial boiling point and boiling range

Boiling point/boiling range : > 35°C

#### Flammability

Flammability (solid, gas) : Not stated.

#### Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) Not stated.

:

Explosive properties, upper explosivity limit (%) Not stated.

:

#### Flash point

Flash Point Interval : FP < 23°C

#### Auto-ignition temperature

Self-ignition temperature : Not specified.

#### Decomposition temperature

Decomposition point/decomposition range : Not specified.

#### pH

pH : Not stated.  
Strongly acidic.

pH (aqueous solution) : Not stated.

#### Kinematic viscosity

Viscosity : Not stated.

#### Solubility

Water solubility : Soluble.

Fat solubility : Not stated.

#### Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water : Not stated.

#### Vapour pressure

Vapour pressure (50°C) : Not relevant.

#### Density and/or relative density

Density : < 1



**Relative vapour density**

Vapour density : Not stated.

**Particle characteristics**

The mixture does not contain nanoforms.

**9.2. Other information**

VOC (g/l) : 750.92

**9.2.1. Information with regard to physical hazard classes**

No data available.

**9.2.2. Other safety characteristics**

No data available.

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**SECTION 10 : STABILITY AND REACTIVITY**

**10.1. Reactivity**

No data available.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

**10.3. Possibility of hazardous reactions**

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

**10.4. Conditions to avoid**

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- accumulation of electrostatic charges.
- heating
- heat
- flames and hot surfaces

**10.5. Incompatible materials**

Keep away from :

- aldehydes
- peroxides

**10.6. Hazardous decomposition products**

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)
- nitrogen oxide (NO)
- nitrogen dioxide (NO<sub>2</sub>)

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**SECTION 11 : TOXICOLOGICAL INFORMATION**

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

May cause irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis, following exposure between three minutes and one hour.

Corrosive reactions are typified by ulcers, bleeding, bloody scabs, and, by the end of observation at 14 days, by discolouration due to blanching of the skin, complete areas of alopecia, and scars.

May be corrosive to the respiratory tract

**11.1.1. Substances**

**Acute toxicity :**

NITRIC ACID [C ≤ 70 %] (CAS: 7697-37-2)

Inhalation route (n/a) : LC50 = 2.65 mg/l



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Duration of exposure : 4 h

ETHANOL (CAS: 64-17-5)

Oral route :

LD50 = 10470 mg/kg bodyweight/day  
Species : Cat  
OECD Guideline 401 (Acute Oral Toxicity)

Dermal route :

LD50 > 2000 mg/kg bodyweight/day  
Species : Rabbit  
OECD Guideline 402 (Acute Dermal Toxicity)

Inhalation route (Vapours) :

LC50 51  
OECD Guideline 403 (Acute Inhalation Toxicity)

**Skin corrosion/skin irritation :**

ETHANOL (CAS: 64-17-5)

Species : Rabbit  
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

**Serious damage to eyes/eye irritation :**

ETHANOL (CAS: 64-17-5)

Species : Rabbit  
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Species : Rabbit  
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Species : Rabbit  
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Species : Rabbit  
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

**Respiratory or skin sensitisation :**

ETHANOL (CAS: 64-17-5)

Local lymph node stimulation test :

Non-Sensitiser.  
Species : Mouse  
OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Guinea Pig Maximisation Test (GMPT) :

Non-sensitiser.  
Species : Guinea pig

**11.1.2. Mixture**

No toxicological data available for the mixture.

**11.2. Information on other hazards**

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**SECTION 12 : ECOLOGICAL INFORMATION**

**12.1. Toxicity**

**12.1.1. Substances**

ETHANOL (CAS: 64-17-5)

Fish toxicity :

LC50 = 13000 mg/l  
Species : Oncorhynchus mykiss



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	Duration of exposure : 96 h OECD Guideline 203 (Fish, Acute Toxicity Test)
Crustacean toxicity :	EC50 = 858 mg/l Species : Artemia salina Duration of exposure : 6 h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Algae toxicity :	ECr50 = 275 mg/l Species : Chlorella vulgaris Duration of exposure : 72 h OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC10 mg/l Species : Chlorella vulgaris Duration of exposure : 72 h OECD Guideline 201 (Alga, Growth Inhibition Test)

**12.1.2. Mixtures**

No aquatic toxicity data available for the mixture.

**12.2. Persistence and degradability**

**12.2.1. Substances**

NITRIC ACID [C ≤ 70 %] (CAS: 7697-37-2)

Biodegradability :

no degradability data is available, the substance is considered as not degrading quickly.

ETHANOL (CAS: 64-17-5)

Biodegradability :

Rapidly degradable.

**12.3. Bioaccumulative potential**

No data available.

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

No data available.

**12.6. Endocrine disrupting properties**

No data available.

**12.7. Other adverse effects**

No data available.

**German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws) :**

WGK 1 : Slightly hazardous for water.

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**SECTION 13 : DISPOSAL CONSIDERATIONS**

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

**13.1. Waste treatment methods**

Do not pour into drains or waterways.

**Waste :**

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

#### Soiled packaging :

Empty container completely. Keep label(s) on container.  
Give to a certified disposal contractor.

### SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2023 - IMDG 2022 [41-22] - ICAO/IATA 2023 [64]).

#### 14.1. UN number or ID number

2924

#### 14.2. UN proper shipping name

UN2924=FLAMMABLE LIQUID, CORROSIVE, N.O.S.  
(ethanol, nitric acid [c <= 70 %])

#### 14.3. Transport hazard class(es)

- Classification :



3+8

#### 14.4. Packing group

II

#### 14.5. Environmental hazards

-

#### 14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	3	FC	II	3+8	338	1 L	274	E2	2	D/E

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation
	3	8	II	1 L	F-E. S-C	274	E2	Category B SW2	-

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	3	8	II	352	1 L	363	5 L	A3 A803	E2
	3	8	II	Y340	0.5 L	-	-	A3 A803	E2

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

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

No data available.

### SECTION 15: Regulatory information

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

##### Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

##### Container information:

No data available.

##### Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH):  
<https://echa.europa.eu/substances-restricted-under-reach>.



**Explosives precursors :**

The mixture contains at least one substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors:

- Nitric acid (CAS 7697-37-2)

The mixture shall not be made available to, introduced into, possessed by or used by members of the general public, either on its own or in mixtures, and for which suspicious transactions and major disappearances and thefts shall be reported within 24 hours.

**Particular provisions :**

No data available.

**German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws) :**

WGK 1 : Slightly hazardous for water.

**15.2. Chemical safety assessment**

No data available.

**SECTION 16 : OTHER INFORMATION**

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

**Wording of the phrases mentioned in section 3 :**

H225	Highly flammable liquid and vapour.
H272	May intensify fire; oxidiser.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
EUH071	Corrosive to the respiratory tract.

**Abbreviations and acronyms :**

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.  
LC50 : The concentration of a test substance resulting in 50% lethality in a given period.  
EC50 : The effective concentration of substance that causes 50% of the maximum response.  
ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.  
REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.  
ATE : Acute Toxicity Estimate  
BW : Body Weight  
DNEL : Derived No-Effect Level  
PNEC : Predicted No-Effect Concentration  
UFI : Unique formulation identifier.  
STEL : Short-term exposure limit  
TWA : Time Weighted Averages  
TMP : French Occupational Illness table  
TLV : Threshold Limit Value (exposure)  
AEV : Average Exposure Value.  
ADR : European agreement concerning the international carriage of dangerous goods by Road.  
IMDG : International Maritime Dangerous Goods.  
IATA : International Air Transport Association.  
ICAO : International Civil Aviation Organisation  
RID : Regulations concerning the International carriage of Dangerous goods by rail.  
WGK : Wassergefährdungsklasse (Water Hazard Class).  
GHS02 : Flame  
GHS05 : Corrosion



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PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.