

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 : SOLUTION ALCOOLIQUE DE CHLORURE DE FER (III) ACIDE

Product code : 17277-17278.

ALCOHOL SOLUTION OF IRON CHLORIDE 3 ACID

UFI : NW70-D0RA-U00A-1TSU

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).

Serious eye damage, Category 1 (Eye Dam. 1, H318).

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 231-729-4

FER(III) CHLORURE, 6H2O

EC 231-595-7

HYDROCHLORIC ACID

Hazard statements :

H225

Highly flammable liquid and vapour.

H318

Causes serious eye damage.

Precautionary statements - Prevention :

P210

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

P280

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

Precautionary statements - Response :

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/...



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Precautionary statements - Storage :

P403 + P235 Store in a well-ventilated place. Keep cool.

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 | % |
|---|---|------|---------------------|
| INDEX: 603-002-00-5 CAS: 64-17-5 EC: 200-578-6 REACH: 01-2119457610-43-0000 ETHANOL | GHS02 Dgr Flam. Liq. 2, H225 | [1] | 50 \leq x % < 100 |
| CAS: 10025-77-1 EC: 231-729-4 REACH: 01-2119497998-05-0000 FER(III) CHLORURE, 6H2O | GHS07, GHS05 Dgr Acute Tox. 4, H302 Eye Dam. 1, H318 | | 2.5 \leq x % < 10 |
| EC: 231-595-7 REACH: 01-2119484862-27 HYDROCHLORIC ACID | GHS05, GHS07 Dgr Skin Corr. 1B, H314 STOT SE 3, H335 | B | 2.5 \leq x % < 10 |

Specific concentration limits:

| Identification | Specific concentration limits | ATE |
|---|--|--------------------------|
| CAS: 10025-77-1 EC: 231-729-4 REACH: 01-2119497998-05-0000 FER(III) CHLORURE, 6H2O | | oral: ATE = 900 mg/kg BW |
| EC: 231-595-7 REACH: 01-2119484862-27 HYDROCHLORIC ACID | Skin Corr. 1B: H314 C \geq 25% Skin Irrit. 2: H315 10% \leq C < 25% Eye Dam. 1: H318 C \geq 25% Eye Irrit. 2: H319 10% \leq C < 25% STOT SE 3: H335 C \geq 10% | |

Information on ingredients :

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

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

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 :

Move to fresh air



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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 :

Wash off with plenty of water

In the event of swallowing :

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, 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.

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 (CO₂)

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 (CO₂)
- hydrogen chloride (HCl)
- phosgene (CCl₂O)
- chlorine (Cl₂)

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.



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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 any contact with the skin and eyes.

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.

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.

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.

Avoid eye contact with this mixture at all times.

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.

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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 :

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

| CAS | TWA : | STEL : | Ceiling : | Definition : | Criteria : |
|---------|-------|----------|-----------|--------------|------------|
| 64-17-5 | | 1000 ppm | | A3 | |

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

| CAS | VME : | VME : | Excess | Notes |
|---------|-------|----------------------|--------|-------|
| 64-17-5 | | 200 ppm 380 mg/m3 | | 4(II) |

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

| CAS | TWA : | STEL : | Ceiling : | Definition : | Criteria : |
|---------|-------|----------|-----------|--------------|------------|
| 64-17-5 | | 1000 ppm | | C3 | |

- 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 |

- Switzerland (Suva 2021) :

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

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

| CAS | TWA : | STEL : | Ceiling : | Definition : | Criteria : |
|---------|------------------------|--------|-----------|--------------|------------|
| 64-17-5 | 1000 ppm 1920 mg/m3 | | | | |

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

HYDROCHLORIC ACID

Final use:

Exposure method:
Potential health effects:
DNEL :

Exposure method:
Potential health effects:

Workers.

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

Inhalation.
Short term local effects.



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DNEL : 15 mg of substance/m³

FER(III) CHLORURE, 6H₂O (CAS: 10025-77-1)

Final use:

Exposure method:
Potential health effects:
DNEL :

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

Final use:

Exposure method:
Potential health effects:
DNEL :

Man exposed via the environment.
Ingestion.
Long term systemic effects.
0.28 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

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

ETHANOL (CAS: 64-17-5)

Final use:

Exposure method:
Potential health effects:
DNEL :

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

Exposure method:
Potential health effects:
DNEL :

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

Exposure method:
Potential health effects:
DNEL :

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

Final use:

Exposure method:
Potential health effects:
DNEL :

Man exposed via the environment.
Ingestion.
Long term systemic effects.
87 mg/kg body weight/day

Exposure method:
Potential health effects:
DNEL :

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

Exposure method:
Potential health effects:
DNEL :

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

Exposure method:
Potential health effects:
DNEL :

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

Predicted no effect concentration (PNEC):

HYDROCHLORIC ACID

Environmental compartment:

Fresh water.

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| | |
|--------------------------------------|---|
| PNEC : | 36 µg/l |
| Environmental compartment: PNEC : | Sea water. 36 µg/l |
| Environmental compartment: PNEC : | Intermittent waste water. 45 µg/l |
| Environmental compartment: PNEC : | Waste water treatment plant. 36 µg/l |
| 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). 0.72 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.



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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

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.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state

Physical state : Fluid liquid.

Colour

Color: Brown

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 : 18.00 °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.



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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) : 736.36

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

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

No data available.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)
- hydrogen chloride (HCl)
- phosgene (CCl₂O)
- chlorine (Cl₂)



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SECTION 11 : TOXICOLOGICAL INFORMATION

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

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.

11.1.1. Substances

Acute toxicity :

FER(III) CHLORURE, 6H₂O (CAS: 10025-77-1)

Oral route :

LD50 = 900 mg/kg bodyweight/day

Species : Rat

11.1.2. Mixture

No toxicological data available for the mixture.

11.2. Information on other hazards

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

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Biodegradability :

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

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.

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.

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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, hydrochloric acid)

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>.



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Explosives precursors :

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

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.

Swiss ordinance on the incentive tax on volatile organic compounds :

64-17-5 éthanol, seulement s'il s'agit d'alcools impropres à la consommation (art. 31 de la loi fédérale sur l'alcool)

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. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| H335 | May cause respiratory irritation. |

Abbreviations and acronyms :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

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

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.