

# SAFETY DATA SHEET

Cleaning Ethanol, 70%

## Section 1. Identification

Cleaning Ethanol, 70%	: Product name
BU02	: Product code
Not available.	: Other means of identification
Professional use. Use in laboratories. Cleaning solutions.	: Product use
Lunaphore Technologies SA Route de Lully 5C, CH-1131 Tolochenaz, Switzerland + 41 800 84 86 89 support-tech@lunaphore.com	: Supplier's details
CHEMTREC: +972 3-763-0639 (Local)	: e-mail address of person responsible for this SDS
	: Emergency telephone number

## Section 2. Hazard identification

### Classification of the substance or mixture

Mixture : Product definition

### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

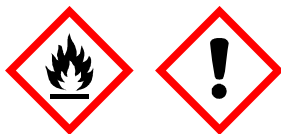
Flam. Liq. 2, H225  
Eye Irrit. 2, H319

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### Label elements



: Hazard pictograms

Danger

: Signal word

H225 - Highly flammable liquid and vapor.

: Hazard statements

H319 - Causes serious eye irritation.

### Precautionary statements

P280 - Wear eye or face protection.

: Prevention

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

P233 - Keep container tightly closed.

P337 + P313 - If eye irritation persists: Get medical advice or attention.

: Response

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

: Storage

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

: Disposal

Not applicable.

: Supplemental label elements

## Section 2. Hazard identification

Not applicable.

: **Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

### 2.3 Other hazards

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

: **Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**

Vapors may form explosive mixtures with air.

: **Other hazards which do not result in classification**

## Section 3. Composition/information on ingredients

Mixture

: **3.2 Mixtures**

Type	Classification	%	Identifiers	Product/ingredient name
[1]	Flam. Liq. 2, H225 Eye Irrit. 2, H319  <b>See Section 16 for the full text of the H statements declared above.</b>	≥50 - <75	REACH #: 01-2119457610-43 EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	ethanol
Specific Conc. Limits, M-factors and ATEs			Product/ingredient name	
			ethanol	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

### Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

### Description of necessary first aid measures

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

: **Eye contact**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

: **Inhalation**

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

: **Skin contact**

## Section 4. First aid measures

Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

: Ingestion

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

Causes serious eye irritation.

: Eye contact

No known significant effects or critical hazards.

: Inhalation

No known significant effects or critical hazards.

: Skin contact

No known significant effects or critical hazards.

: Ingestion

#### Over-exposure signs/symptoms

Adverse symptoms may include the following:

pain or irritation

: Eye contact

watering

redness

No specific data.

: Inhalation

No specific data.

: Skin contact

No specific data.

: Ingestion

### Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

: Notes to physician

No specific treatment.

: Specific treatments

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

: Protection of first-aiders

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

Use dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray (fog). Use an extinguishing agent suitable for the surrounding fire.

: Suitable extinguishing media

Do not use water jet.

: Unsuitable extinguishing media

Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

: Specific hazards arising from the chemical

Decomposition products may include the following materials:

carbon dioxide

carbon monoxide

: Hazardous thermal decomposition products

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

: Special protective actions for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

: Special protective equipment for fire-fighters

## Section 5. Fire-fighting measures

Vapors may form explosive mixtures with air.

: Remark (Explosibility)

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

: For non-emergency personnel

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

: For emergency responders

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

: Environmental precautions

### Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

: Small spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

: Large spill

## Section 7. Handling and storage

### Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

: Protective measures

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

: Advice on general occupational hygiene

## Section 7. Handling and storage

Store between the following temperatures: 5 to 30°C (41 to 86°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

: **Conditions for safe storage, including any incompatibilities**

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Exposure limits	Ingredient name
None.	

#### Biological exposure indices

Exposure indices	Ingredient name
None known.	

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

: **Appropriate engineering controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

: **Environmental exposure controls**

### Individual protection measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

: **Hygiene measures**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

: **Eye/face protection**

### Skin protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

: **Hand protection**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

: **Body protection**

## Section 8. Exposure controls/personal protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

: **Other skin protection**

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

: **Respiratory protection**

## SECTION 9: Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

Liquid.

: **Physical state**

Colorless. [Transparent]

: **Color**

Alcohol-like.

: **Odor**

Not available.

: **Odor threshold**

Not available.

: **pH**

Not available.

: **Melting point/freezing point**

78 to 100°C (172.4 to 212°F)

: **Boiling point, initial boiling point, and boiling range**

22°C (71.6°F)

: **Flash point**

Not applicable.

: **Flammability**

Not available.

: **Lower and upper explosion limit/flammability limit**

4.2 kPa (31.3 mm Hg) [room temperature]

: **Vapor pressure**

20.3 kPa (152.41 mm Hg) [50°C (122°F)]

Not available.

: **Relative vapor density**

0.87

: **Relative density**

0.8603 g/cm<sup>3</sup> [20°C (68°F)]

: **Density**

Not available.

: **Solubility in water**

Yes.

: **Miscible with water**

Not applicable.

: **Partition coefficient: n-octanol/water**

423°C (793.4°F)

: **Auto-ignition temperature**

Not available.

: **Decomposition temperature**

Dynamic: 1.08 mPa·s (1.08 cP)

: **Viscosity**

Kinematic: 1.25 mm<sup>2</sup>/s (1.25 cSt)

### Particle characteristics

Not applicable.

: **Median particle size**

## Section 10. Stability and reactivity

No specific test data related to reactivity available for this product or its ingredients.

: **Reactivity**

The product is stable.

: **Chemical stability**

Under normal conditions of storage and use, hazardous reactions will not occur.

: **Possibility of hazardous reactions**

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

: **Conditions to avoid**

## Section 10. Stability and reactivity

Reactive or incompatible with the following materials:  
oxidizing materials, strong acids, strong alkalis, peroxides. : **Incompatible materials**

Under normal conditions of storage and use, hazardous decomposition products should not be produced. : **Hazardous decomposition products**

## Section 11. Toxicological information

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

### Acute toxicity

Exposure	Dose	Species	Result	Product/ingredient name
4 hours	124.7 mg/l	Rat - Male, Female	LC50 Inhalation Vapor [OECD 403]	ethanol
-	20000 mg/kg	Rabbit	LD50 Dermal	
-	6200 mg/kg	Rat	LD50 Oral	

Based on available data, the classification criteria are not met. : **Conclusion/Summary**

### Acute toxicity estimates

Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)	Product/ingredient name
6200	20000	N/A	124.7	N/A	ethanol

### Irritation/Corrosion

Not available. : **Conclusion/Summary**  
Causes serious eye irritation. : **Skin**  
Not available. : **Eyes**  
Not available. : **Respiratory**

### Sensitization

Not available. : **Conclusion/Summary**  
Not available. : **Skin**  
Not available. : **Respiratory**

### Mutagenicity

Not available. : **Conclusion/Summary**

### Carcinogenicity

Not available. : **Conclusion/Summary**

### Reproductive toxicity

Not available. : **Conclusion/Summary**

### Teratogenicity

Not available. : **Conclusion/Summary**

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

## Section 11. Toxicological information

Not available.

: Information on the likely routes of exposure

### Potential acute health effects

Causes serious eye irritation.

: Eye contact

No known significant effects or critical hazards.

: Inhalation

No known significant effects or critical hazards.

: Skin contact

No known significant effects or critical hazards.

: Ingestion

### Symptoms related to the physical, chemical and toxicological characteristics

Adverse symptoms may include the following:

: Eye contact

pain or irritation

watering

redness

No specific data.

: Inhalation

No specific data.

: Skin contact

No specific data.

: Ingestion

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

Not available.

: Potential immediate effects

Not available.

: Potential delayed effects

#### Long term exposure

Not available.

: Potential immediate effects

Not available.

: Potential delayed effects

#### Potential chronic health effects

Not available.

Not available.

: Conclusion/Summary

No known significant effects or critical hazards.

: General

No known significant effects or critical hazards.

: Carcinogenicity

No known significant effects or critical hazards.

: Mutagenicity

No known significant effects or critical hazards.

: Reproductive toxicity

### Information on other hazards

#### Endocrine disrupting properties

No known significant effects or critical hazards (Human Health).

#### Other information

Not available.

## Section 12. Ecological information

### Toxicity

Exposure	Species	Result	Product/ingredient name
48 hours	Daphnia - Daphnia magna	Acute EC50 9268 mg/l	ethanol
96 hours	Fish - Alburnus alburnus	Acute LC50 11000 mg/l	
192 hours	Aquatic plants - Microcystis aeruginosa	Chronic EC50 1450 mg/l	

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

: Conclusion/Summary



## Section 12. Ecological information

### Persistence and degradability

Inoculum	Dose	Result	Test	Product/ingredient name
-	-	89 % - Readily - 14 days	-	ethanol

There are no data available on the mixture itself.

: **Conclusion/Summary**

Biodegradability	Photolysis	Aquatic half-life	Product/ingredient name
Readily	89%; < 28 day(s)	-	ethanol

### Bioaccumulative potential

Potential	BCF	LogP <sub>ow</sub>	Product/ingredient name
low	3	-0.31	ethanol

### Mobility in soil

Not available.

: **Soil/water partition coefficient (K<sub>oc</sub>)**

Not available.

: **Mobility**

No known significant effects or critical hazards.

: **Other adverse effects**

### Endocrine disrupting properties




No known significant effects or critical hazards (Environment).

## Section 13. Disposal considerations

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

: **Disposal methods**

## Section 14. Transport information

IATA	IMDG	UN	
UN1170	UN1170	UN1170	<b>UN number</b>
Ethanol solution	ETHANOL SOLUTION	ETHANOL SOLUTION	<b>UN proper shipping name</b>
3	3	3	<b>Transport hazard class(es)</b>
			<b>Label</b>

**Section 14. Transport information**

II	II	II	Packing group
No.	Marine Pollutant: No	No.	Environmental hazards

**Additional information**

<b>Special provisions</b> 144	: UN
<b>Emergency schedules</b> F-E, S-D	: IMDG
<b>Special provisions</b> 144	
<b>Quantity limitation</b> Passenger and Cargo Aircraft: 5 L. Packaging instructions: 353.	: IATA
Cargo Aircraft Only: 60 L. Packaging instructions: 364. Limited Quantities -	
Passenger Aircraft: 1 L. Packaging instructions: Y341.	
<b>Special provisions</b> A3, A58, A180	

**Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. : **Special precautions for user**

Not applicable. : **Transport in bulk according to IMO instruments**

**Section 15. Regulatory information****VOC**

Product ready-for-use	Product as-supplied	Calculation method
Not applicable	567.8 g/l 66 % (w/w)	Without volume exclusion
Not applicable	802.5 g/l	With volume exclusion [water excluded]
Not applicable	567.8 g/l	With volume exclusion [water not excluded]

**International regulations****Chemical Weapon Convention List Schedules I, II & III Chemicals****Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**Inventory list**

All components are listed or exempted.	: <b>Australia</b>
All components are listed or exempted.	: <b>Canada</b>
All components are listed or exempted.	: <b>China</b>
<b>Russian Federation inventory:</b> All components are listed or exempted.	: <b>Eurasian Economic Union</b>
<b>Japan inventory (CSCL):</b>	: <b>Japan</b>
All components are listed or exempted.	
All components are listed or exempted.	: <b>New Zealand</b>
All components are listed or exempted.	: <b>Philippines</b>
All components are listed or exempted.	: <b>Republic of Korea</b>
All components are listed or exempted.	: <b>Taiwan</b>

## Section 15. Regulatory information

All components are listed or exempted. : **Thailand**  
 All components are active or exempted. : **United States**  
 All components are listed or exempted. : **Viet Nam**

## Section 16. Other information

### History

04/11/2022 : **Date of printing**  
 04/11/2022 : **Date of issue/Date of revision**  
 25/11/2021 : **Date of previous issue**  
 2 : **Version**  
 : **Key to abbreviations**

ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 N/A = Not available  
 SGG = Segregation Group  
 UN = United Nations

### Procedure used to derive the classification

Justification	Classification
Expert judgment	FLAMMABLE LIQUIDS - Category 2
Calculation method	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

Not available. : **References**

Indicates information that has changed from previously issued version. 

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.  
 Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.