

# Safety Data Sheet

## 70% Alcohol

### Liquid Surface Cleaner



**AEROCHEM**

## 1. Identification

<b>Product identifier</b>	70% Alcohol Liquid Surface Cleaner		
<b>Product code</b>	FLSANIS70500ML, FLSANIS703.78L, FLSANIS7020L, FLSANIS70208L, FLSANIS701000L, FLSANIS7020LU, FLSANIS70208LU, FLSANIS701000LU		
<b>Other means of identification</b>	None.		
<b>Recommended use of the chemical and restrictions on use</b>	Liquid surface cleaner. Not recommended for any other use not detailed on product data sheet or label.		
<b>Manufacturer</b>	AEROCHEM Inc. 5977 Trans Canada Highway Pointe-Claire, QC H9R 1C1 Canada  General Information: 1-888-592-5837  <a href="http://www.aerochem.ca">www.aerochem.ca</a> <a href="mailto:info@aerochem.ca">info@aerochem.ca</a>	<b>Distributor</b>	AEROCHEM Inc. 810 Day Hill Road Windsor, CT 06095 United States  General Information: 1-888-592-5837  <a href="http://www.walter.com">www.walter.com</a> <a href="mailto:info.us@walter.com">info.us@walter.com</a>
<b>Emergency phone number</b>	INFOTRAC®: 1-800-535-5053 International call collect: 1-352-323-3500 24 hours/day, 7 days/week		

## 2. Hazard identification

<b>Summary</b>	Flammable liquid. Keep away from heat, sparks and open flame. Avoid contact with skin, eyes and clothing. Do not breathe vapors and aerosols. Do not ingest. If medical advice is needed, have this SDS or label at hand. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
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### WHMIS 2015/GHS/OSHA HCS 2012



Flammable liquids (Category 3)  
Skin corrosion/irritation (Category 2)  
Serious eye damage/eye irritation (Category 2)

#### WARNING

H226: Flammable liquid and vapour  
H319: Causes serious eye irritation  
H315: Causes skin irritation  
P210: Keep away from heat, sparks, open flames and other ignition sources. No smoking.  
P240: Ground or bond container and receiving equipment.  
P241: Use explosion-proof electrical equipment.  
P242: Use only non-sparking tools.  
P243: Take precautionary measures against static discharge.  
P264: Wash skin thoroughly after handling.  
P280: Wear protective gloves, protective clothing and eye protection.

P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P332+313: If skin irritation occurs: Get medical advice or attention.  
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P337+313: If eye irritation persists: Get medical advice or attention.  
P362+364: Take off contaminated clothing and wash before reuse.  
P403+P235+P233: Store in a well-ventilated place. Keep container tightly closed. Keep cool.  
P501: Dispose of contents and container to a licensed chemical disposal agency in accordance with local, regional and national regulations.

### 3. Composition/information on ingredients

Common name	CAS	Weight % content
Ethyl alcohol	64-17-5	60 - 80 %
2-Butoxyethanol	111-76-2	1 - 5 %
<b>Note:</b> The manufacturer withholds the actual concentration range of the ingredients as a trade secret.		

### 4. First-aid measures

<b>Inhalation</b>	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
<b>Skin contact</b>	Flush with water for at least 15 minutes. Remove contaminated clothing and wash before reuse. Avoid touching eyes with contaminated body parts. If a problem develops or persists, seek medical attention.
<b>Eye contact</b>	IMMEDIATELY flush with plenty of water. Remove contact lenses if easy to do. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
<b>Ingestion</b>	DO NOT induce vomiting, unless recommended by medical personnel. If victim is conscious wash out mouth with plenty of water. Never give anything by mouth if victim is unconscious or convulsing. If spontaneous vomiting occurs, keep head below hip level to prevent aspiration into the lungs. Seek medical attention or contact a Poison Centre immediately.
<b>Other</b>	No additional information.
<b>Symptoms</b>	May cause redness, tearing, and eye irritation. May cause dry skin and irritation. May cause slight irritation of the respiratory system. Prolonged exposure may cause headache, dizziness and nausea.
<b>Notes to the physician</b>	If gastric lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Dry chemicals, water fog, alcohol resistant foam, carbon dioxide (CO <sub>2</sub> ). Do not use a heavy water jet.
<b>Specific hazards arising from the chemical</b>	Flammable liquid and vapours. May be ignited by heat, sparks, flame or static electricity. Vapours are heavier than air and may travel to an ignition source distant from the material handling point.
<b>Special protective equipment</b>	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
<b>Special protective actions for fire-fighters</b>	Use water spray to cool fire-exposed containers. Water may be ineffective to extinguish a fire, because mixtures of alcohol and water are also flammable. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

## 6. Accidental release measures


<b>Personal precautions, protective equipment and emergency procedures</b>	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
<b>Environmental precautions</b>	Prevent entry into sewers, closed areas and release to the environment. For a large spill, consult the Department of Environment or the relevant authorities.
<b>Methods and materials for containment and cleaning up</b>	Ventilate the area well. Remove sources of ignition. Stop leak, if it's possible to do so without risk. Absorb with inert material (soil, sand, vermiculite) and place in an appropriate waste disposal clearly identified. Use non-sparking and antistatic tools. Never return the spilled product into its original container for reuse. Dispose via a licensed waste disposal contractor.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Keep away from heat, sparks and open flame. Use non-sparking and antistatic tools. Ground/bond all containers when transferring large quantities (5 gallons US or 20 L and more). Use only in well ventilated area. Avoid contact with skin, eyes and clothing. Do not breathe vapors and aerosols. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep only the quantities necessary for the work being performed in the work area. Keep containers tightly closed when not in use. Do not eat, do not drink and do not smoke during use. After use, wash hands with soap and water. Wash contaminated clothing before reuse.
<b>Conditions for safe storage, including any incompatibilities</b>	Storage and handling should follow the NFPA 30 Flammable and/or Combustible Liquids Code and the National Fire Code of Canada (NFCC). Ground or bond large containers. Store tightly closed and in properly labelled containers in a cool, dry and well ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store away from oxidizing materials and incompatible materials (see section 10). Keep away from direct sunlight and heat.
<b>Storage temperature</b>	<30°C (86°F)

## 8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Ethyl alcohol: 3300 ppm. 2-Butoxyethanol: 700 ppm.			
Ethyl alcohol	STEL	1000 ppm		ACGIH , BC, ON
	TWA (8h)	1000 ppm	1880 mg/m <sup>3</sup>	RSST
		1000 ppm	1900 mg/m <sup>3</sup>	OSHA
2-Butoxyethanol	TWA (8h)	20 ppm		ACGIH , BC, ON
		20 ppm	97 mg/m <sup>3</sup>	RSST
		50 ppm	240 mg/m <sup>3</sup>	OSHA
Appropriate engineering controls	Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.			
Individual protection measures				
Eye	Wear safety glasses with side shields. If there is a risk of contact with eyes, wear chemical splash goggles.			
Hands	Chemical-resistant, impervious gloves should be worn at all times when handling this chemical product. Wear nitrile or neoprene gloves. Be aware that the liquid may penetrate the gloves. Therefore, change gloves when worn. Disposable nitrile gloves can also be used, but discard after single use. Gloves must only be worn on clean hands.			
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer			

	code. If necessary, wear an apron or long-sleeve protective coverall suit.
<b>Respiratory</b>	Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. In case of insufficient ventilation or in confined or enclosed space and for an assigned protection factor (APF) up to 10 times of exposure limit, wear a half mask respirator with organic vapour cartridges. For an APF until maximum 100 times of exposure limit, wear a full face mask respirator with organic vapour cartridges.
<b>Feet</b>	Wear rubber boots to clean up a spill.
 <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <span>Goggles</span> <span>Nitrile gloves</span> <span>Lab coat</span> </div>	

## 9. Physical and chemical properties

<b>Physical state</b>	Liquid	<b>Flammability</b>	Flammable.
<b>Colour</b>	Transparent	<b>Flammability limits</b>	3.3 to 19%
<b>Odour</b>	Light Lemon Scent	<b>Flash point</b>	23.5°C (74.3°F)
<b>Odour threshold</b>	0.1 to 49 ppm	<b>Auto-ignition temperature</b>	363°C (685.4°F)
<b>pH</b>	6.7	<b>Sensibility to electrostatic charges</b>	Yes
<b>Melting point</b>	<-30°C (-22°F)	<b>Sensibility to sparks and/or friction</b>	No
<b>Freezing point</b>	<-30°C (-22°F)	<b>Vapour density</b>	>1 (Air = 1)
<b>Boiling point</b>	77 to 79°C (170.6 to 174.2°F)	<b>Relative density</b>	0.855 kg/L (Water = 1)
<b>Solubility</b>	Soluble in water.	<b>Partition coefficient n-octanol/water</b>	<1
<b>Evaporation rate</b>	> Butyl Acetate	<b>Decomposition temperature</b>	N/Av.
<b>Vapour pressure</b>	<6kPa (45 mm Hg) @ 20°C (68°F)	<b>Viscosity</b>	N/Av.
<b>Percent Volatile</b>	100%	<b>Molecular mass</b>	N/Ap.
N/Av.: Not Available    N/Ap.: Not Applicable    Und.: Undetermined    N/E: Not Established			

## 10. Stability and reactivity

<b>Reactivity</b>	No reactivity expected.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions (including polymerizations)</b>	A dangerous reaction will not occur.
<b>Conditions to avoid</b>	Avoid heat, flame and sparks. Avoid contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents (e.g. chlorine, fluorine, nitric acid, perchloric acid, peroxides, nitrates, chlorates, chromates, permanganates and perchlorates), strong reducing agents



	(e.g. potassium, sodium, lithium, metal hydrides), isocyanates.
<b>Hazardous decomposition products</b>	No decomposition product.

## 11. Toxicological information

<b>Numerical measures of toxicity</b>	<p>Ethyl alcohol    Ingestion 7060 mg/kg Rat    LD50  Inhalation 39 mg/l/4h    Mouse    LC50  Skin    20000 mg/kg Rabbit    LD50</p> <p>2-Butoxyethanol    Ingestion 560 mg/kg Rat    LD50  Inhalation 2.38 mg/l/4h Rat    LC50  Skin    400 mg/kg Rabbit    LD50  &gt;2000 mg/kg Rat    LD50  &gt;2000 mg/kg Guinea pig LD50</p>
<b>Likely routes of exposure</b>	Skin, eyes, inhalation, ingestion.
<b>Delayed, immediate and chronic effects</b>	<p><b>Eye contact</b>    May cause itching, redness and skin irritation. Eye Irritation/Corrosion, Rabbit (OECD TG 405): tests performed with each ingredient of this mixture gave not irritating to irritating results.</p> <p><b>Skin contact</b>    May cause dry skin and irritation. Prolonged and repeated contact may cause dry skin, irritation or dermatitis. Skin Irritation/Corrosion, Rabbit (OECD 404) : tests performed with each ingredient of this mixture gave not irritating to irritating results.</p> <p><b>Inhalation</b>    In the workplace, the product is rapidly absorbed by respiratory tract. May cause slight irritation of the respiratory system. Prolonged exposure may cause headache, dizziness and nausea. The severity of symptoms may vary depending on exposure conditions.</p> <p><b>Ingestion</b>    The ingestion of ethanol can cause euphoria, sensations of drunkenness followed by a depression of the central nervous system which can be manifested by headaches, nausea, dizziness, incoordination, blurred speech, mental confusion and narcosis.</p> <p><b>Respiratory or skin sensitization</b>    Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.</p> <p><b>IARC/NTP Classification</b>    No ingredients listed.</p> <p><b>Carcinogenicity</b>    Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA. Ethanol when not consumed in an alcoholic beverage is not classifiable as a human carcinogen.</p> <p><b>Mutagenicity</b>    Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.</p> <p><b>Reproductive toxicity</b>    Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects.</p> <p><b>Specific target organ toxicity - single exposure</b>    No target organ is listed.</p> <p><b>Specific target organ toxicity - repeated exposure</b>    No target organ is listed.</p>
<b>Interactive effects</b>	No information available.
<b>Other information</b>	The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimates (ATE) by inhalation of the mixture were calculated to be greater than 20 mg/L/4h for vapours and to be greater than 5 mg/L/4h for the aerosols and mists. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.


## 12. Ecological information

<b>Ecological toxicity</b>	<p>Fish - Pimephales promelas [flow-through] LC50 13400 mg/L; 96 h (CAS no 64-17-5)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 9268 mg/L; 48 h (CAS no 64-17-5)</p> <p>Aquatic Plant - Algae, Chlorella vulgaris EC50 275 mg/L; 72 h (CAS no 64-17-5)</p> <p>Fish - Oncorhynchus mykiss - Rainbow trout LC50 1474 mg/L; 96 h (CAS no 111-76-2)</p> <p>Aquatic Invertebrate - Daphnia magna (Water flea) LC50 1550 mg/L; 48 h (CAS no 111-76-2)</p> <p>Algae, Pseudokirchneriella subcapitata EC50 1840 mg/L; 72 h (CAS no 111-76-2)</p>
<b>Persistence</b>	Not persistent in environment.
<b>Degradability</b>	The product is a mixture whose ingredients are readily biodegradable (> 60% in 28 days).
<b>Bioaccumulative potential</b>	The product is a mixture of which all ingredients have a low bioaccumulation potential (Log Kow of <3 and / or BCF <500).
<b>Mobility in soil</b>	The product is a mixture of which some ingredients evaporate very easily from the surface of the soil. Moreover, ingredients have very high mobility in soil.
<b>Other adverse effects</b>	This chemical does not deplete the ozone layer.

## 13. Disposal considerations

<b>Container</b>	Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. Organic solvents and wastes residues can be reprocessed (recycle) where there is a recovery program. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.
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## 14. Transport information

<b>UN Number</b>	UN 1993
<b>UN Proper Shipping Name</b>	FLAMMABLE LIQUID, N.O.S. (ethanol, 2-butoxyethanol)
<b>Environmental hazards</b>	This material does not contain marine pollutant.
<b>Special precautions for user</b>	Permit required for transportation with proper DANGER placards displayed on vehicle.
<b>TDG - Transportation of Dangerous Goods (Canada &amp; US DOT)</b>	
<b>Transport hazard class(es)</b>	 Class 3
<b>Packing group</b>	III
<b>Emergency response guidebook 2016</b>	128
<b>IMO/IMDG - International Maritime Transport</b>	
<b>Classification</b>	UN 1993. FLAMMABLE LIQUID, N.O.S. (ethanol, 2-butoxyethanol). Class 3, PG III. Emergency schedules (EmS-No) F-E, S-E
<b>IATA - International Air Transport Association</b>	

<b>Classification</b>	UN 1993. FLAMMABLE LIQUID, N.O.S. (ethanol, 2-butoxyethanol). Class 3, PG III.
These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.	

## 15. Regulatory information

### CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
Ethyl alcohol	64-17-5	X	X		X
2-Butoxyethanol	111-76-2	X	X		X

- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act
- DSL: Domestic Substances List Inventory
- NDSL: Non-Domestic Substances List Inventory
- NPRI: National Pollutant Release Inventory Substances

### UNITED STATE OF AMERICA

Common name	CAS	TSCA	CER CLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Prio.
Ethyl alcohol	64-17-5	X								
2-Butoxyethanol	111-76-2	X								

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

### California Proposition 65

No ingredients listed.

### Other regulations



## 16. Other information

<b>Date (YYYY-MM-DD)</b>	AEROCHEM Inc. 2020-05-20
<b>Version</b>	02
<b>Other information</b>	<p>REFERENCES:</p> <ul style="list-style-type: none"> <li>- Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), <a href="http://www.reptox.csst.qc.ca">http://www.reptox.csst.qc.ca</a></li> <li>- Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, <a href="https://haz-map.com/">https://haz-map.com/</a></li> </ul>

- NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, <http://www.cdc.gov/niosh/npg/npg.html>  
- The National Center for Biotechnology Information, National Institutes of Health (NIH), U.S. National Library of Medicine, <https://pubchem.ncbi.nlm.nih.gov/>  
DATE OF FIRST VERSION OF SDS:  
2020-03-18.

ACGIH: American Conference of Governmental Industrial Hygienists  
AIHA: American Industrial Hygiene Association  
HMIS: Hazardous Materials Identification System  
NFPA: National Fire Protection Association  
OSHA: Occupational Safety and Health Administration (USA)  
NIOSH: National Institute for Occupational Safety and Health  
NTP: National Toxicology Program  
RSST: Règlement sur la santé et la sécurité du travail (Québec)  
GHS: Globally Harmonized System  
IARC: International Agency for Research on Cancer  
IDLH: Immediately Dangerous to Life or Health  
STEL: Short Term Exposure Limit (15 min)  
TWA: Time Weighted Averages  
WHMIS: Workplace Hazardous Materials Information System

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