

Safety Data Sheet
Liquid Hand Cleaner - 70%
ALCOHOL



AEROCHEM

1. Identification

Product identifier	Liquid Hand Cleaner - 70% ALCOHOL
Product code	FLSANIH70350ML ; FLSANIH70500ML ; FLSANIH7020L ; FLSANIH70208L
Other means of identification	None.
Recommended use of the chemical and restrictions on use	Hand sanitizer. Not recommended for any other use not detailed on product data sheet or label.
Manufacturer	AEROCHEM Inc. 5977 Trans Canada Highway Pointe-Claire, QC H9R 1C1 Canada General Information: 1-888-592-5837 www.aerochem.ca info@aerochem.ca
Emergency phone number	INFOTRAC®: 1-800-535-5053 International call collect: 1-352-323-3500 24 hours/day, 7 days/week

2. Hazard identification

Summary	Flammable liquid. Keep away from heat, sparks and open flame. Avoid contact with eyes. Do not breathe vapors. Do not ingest. If medical advice is needed, have this SDS or label at hand.
WHMIS 2015/GHS/OSHA HCS 2012	
 Flammable liquids (Category 2) Serious eye damage/eye irritation (Category 2) DANGER H225: Highly flammable liquid and vapour H319: Causes serious eye 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. P280: Wear eye protection. 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. 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 %
Isopropyl alcohol	67-63-0	3 - 7 %
Ethyl acetate	141-78-6	1 - 5 %

Note: The manufacturer withholds the actual concentration range of the ingredients as a trade secret.

4. First-aid measures

Inhalation	Move person to fresh air. If a problem develops or persists, seek medical attention.
Skin contact	No first aid is necessary in normal use. In case of a spill, flush with water. Remove contaminated clothing and wash before reuse. If a problem develops or persists, seek medical attention.
Eye contact	Flush with water for at least 15 minutes. Remove contact lenses if easy to do. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. Never give anything by mouth if victim is unconscious or convulsing. If victim is conscious wash out mouth with water and give 1-2 glasses of water to drink. If a problem develops or persists, seek medical attention or contact a Poison Centre.
Other	No additional information.
Symptoms	May cause redness, tearing, and eye irritation.
Notes to the physician	No additional information.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemicals, water fog, alcohol resistant foam, carbon dioxide (CO2). Do not use a heavy water jet.
Specific hazards arising from the chemical	Highly flammable liquid and vapour. 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.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	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

Personal precautions, protective equipment and emergency procedures	In the event of a large spill, wear nitrile or neoprene gloves. Wear chemical splash goggles.
Environmental precautions	Prevent entry into sewers, closed areas and release to the environment.
Methods and materials for containment and	Ventilate the area well. Remove sources of ignition. Absorb with inert material (soil, sand, vermiculite) or wipe up with a damp mop and place in an appropriate waste disposal clearly identified. Finish cleaning by rinsing with water contaminated surface. Never return the spilled product into its original

cleaning up	container for reuse.
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7. Handling and storage

Precautions for safe handling	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 in well ventilated area. Avoid contact with eyes. Do not breathe vapors. Wear eye protection and other protective clothing that are adapted to the task being performed and the risks involved. Keep containers tightly closed when not in use. Do not eat, do not drink and do not smoke during use. Remove contaminated clothing and shoes and wash before reuse.
Conditions for safe storage, including any incompatibilities	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.
Storage temperature	<30°C (86°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Ethyl alcohol: 3300 ppm. Isopropyl alcohol: 2000 ppm. Ethyl acetate: 2000 ppm.			
Ethyl alcohol	STEL	1000 ppm	1880 mg/m ³	ACGIH , BC, ON RSST
	TWA (8h)	1000 ppm		
Isopropyl alcohol	STEL	400 ppm	1230 mg/m ³	ACGIH , BC, ON RSST
		500 ppm		
	TWA (8h)	200 ppm	983 mg/m ³	ACGIH , BC, ON RSST
		400 ppm		
Ethyl acetate	TWA (8h)	150 ppm	1440 mg/m ³	BC ACGIH , ON RSST
		400 ppm		
		400 ppm		
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	In the workplace, wear safety glasses with side shields. If there is a risk of contact with eyes, wear chemical splash goggles.			
Hands	No protective equipment is needed under normal use conditions. In the workplace, wear Nitrile gloves. Disposable nitrile gloves can also be used, but discard after single use.			
Skin	Wear work clothing as required by employer code.			
Respiratory	No respiratory protective equipment is required under normal conditions of use. 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 enclosed area until maximum 10 times of exposure limit, wear half mask respirator with organic vapors cartridges.			
Feet	Wear rubber boots to clean up a spill.			

9. Physical and chemical properties

Physical state	Viscous liquid	Flammability	Flammable.
Colour	Translucent	Flammability limits	2 to 19%
Odour	Slight alcohol odor	Flash point	21 °C (69.8 °F) Tag Closed Cup tester
Odour threshold	N/Av.	Auto-ignition temperature	363 to 425 °C (685.4 to 797 °F)
pH	7	Sensibility to electrostatic charges	Yes
Melting point	<0 °C (32 °F)	Sensibility to sparks and/or friction	No
Freezing point	<0 °C (32 °F)	Vapour density	>1 (Air = 1)
Boiling point	77 to 79 °C (170.6 to 174.2 °F)	Relative density	0.862 kg/L (Water = 1)
Solubility	Soluble in water.	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	N/Av.	Decomposition temperature	N/Av.
Vapour pressure	<6kPa (45 mm Hg) @ 20 °C (68 °F)	Viscosity	<20 cSt @ 40 °C (104 °F)
Percent Volatile	>99%	Molecular mass	N/Av.
N/Av.: Not Available N/Av.: Not Applicable Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

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

11. Toxicological information

Numerical measures of toxicity	Ethyl alcohol	Ingestion	7060 mg/kg	Rat	LD50
		Inhalation	39 mg/l/4h	Mouse	LC50
		Skin	20000 mg/kg	Rabbit	LD50
	Isopropyl alcohol	Ingestion	5045 mg/kg	Rat	LD50
			3600 mg/kg	Mouse	LD50
		Inhalation	66.1 mg/l/4h	Rat	LC50
	Ethyl acetate	Skin	6280 mg/kg	Rat	LD50
		Ingestion	5620 mg/kg	Rat	LD50
		Inhalation	38.2 mg/l/4h	Mouse	LC50
		Skin	>18000 mg/kg	Rabbit	LD50
	Skin, eyes, inhalation, ingestion.				

Likely routes of exposure	
Delayed, immediate and chronic effects	Eye contact 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. Skin contact Prolonged and repeated exposure may cause dry skin. Skin Irritation/Corrosion, Rabbit (OECD 404) : tests performed with each ingredient of this mixture gave not irritating results. Inhalation 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. Ingestion 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. Respiratory or skin sensitization Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers. IARC/NTP Classification No ingredients listed. Carcinogenicity 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. Mutagenicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects. Reproductive toxicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects. Specific target organ toxicity - single exposure No target organ is listed. Specific target organ toxicity - repeated exposure No target organ is listed.
Interactive effects	No information available.
Other information	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

Ecological toxicity	Fish - Pimephales promelas [flow-through] LC50 13400 mg/L; 96 h (CAS no 64-17-5) Aquatic Invertebrate - Daphnia magna EC50 9268 mg/L; 48 h (CAS no 64-17-5) Aquatic Plant - Algae, Chlorella vulgaris EC50 275 mg/L; 72 h (CAS no 64-17-5) Fish - Fathead minnow, Pimephales promelas - fresh water LC50 9640 mg/L; 96 h (CAS no 67-63-0) Aquatic Invertebrate - Daphnia magna EC50 3644 mg/L; 48 h (CAS no 67-63-0) Fish - Pimephales promelas - Fresh water LC50 220 mg/L; 96 h (CAS no 141-78-6) Aquatic Invertebrate - Daphnia magna EC50 560 mg/L; 48 h (CAS no 141-78-6)
Persistence	Not persistent in environment.
Degradability	The product is a mixture whose ingredients are readily biodegradable (> 60% in 28 days).
Bioaccumulative potential	The product is a mixture of which all ingredients have a low bioaccumulation potential (Log Kow of <3 and / or BCF <500).
Mobility in soil	

	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.
Other adverse effects	This chemical does not deplete the ozone layer.

13. Disposal considerations

Container	Important! Prevent waste generation. Use in full. Organic solvents and wastes residues can be reprocessed (recycle) where there is a recovery program. 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

UN Number	UN 1993
UN Proper Shipping Name	FLAMMABLE LIQUID, N.O.S. (ethanol, ethyl acetate)
Environmental hazards	This material does not contain marine pollutant.
Special precautions for user	Permit required for transportation with proper DANGER placards displayed on vehicle. Exemption available: LTD QTY according to TDG Canada - art. 1.17; Mode of transportation: rail, sea and road, applicable for Canadian domestic shipments. Quantitative limits: applicable for domestic containers (plastic bottles, glass or metal) containing =< 5 L each.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	 Class 3
Packing group	
Emergency response guidebook 2016	128
IMO/IMDG - International Maritime Transport	
Classification	UN 1993. FLAMMABLE LIQUID, N.O.S. (ethanol, ethyl acetate) Class 3, PG II. Emergency schedules (EmS-No) F-E, S-E
IATA - International Air Transport Association	
Classification	UN 1993. FLAMMABLE LIQUID, N.O.S. (ethanol, ethyl acetate) Class 3, PG II.
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
Isopropyl alcohol	67-63-0	X	X		X
Ethyl acetate	141-78-6	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								
Isopropyl alcohol	67-63-0	X		X						
Ethyl acetate	141-78-6	X	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

Common name	CAS	Cancer	Reproductive and Developmental Toxicity
Ethyl alcohol	64-17-5	X	X

Other regulations

- California Proposition 65:
This product contains chemicals known to the State of California to cause birth defects or other reproductive harm.
Ethyl alcohol in alcoholic beverages,
Contains ingredients that can cause cancer according to the state of California.
Ethyl alcohol in alcoholic beverages,

HMIS



NFPA



16. Other information

Date (YYYY-MM-DD)	AEROCHEM Inc. 2020-03-18
Version	01
Other information	REFERENCES: - Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), http://www.reptox.csst.qc.ca - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, https://haz-map.com/ - 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/ 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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