SAFETY DATA SHEET: ISOPROPYL ALCOHOL 99%

Section 1: IDENTIFICATION

Product Name: ISOPROPYL ALCOHOL 99%

Common Names or Synonyms: None.

Recommended Use: ALL PROPER AND LEGAL PURPOSES

Restrictions on Use: None known.

Company:
ChemFast, LLC
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Gorham, ME 04038
800-287-2225
info@chemfast.com

Emergency Phone:
1-800-424-9300
CHEMTREC 24-Hour Emergency Service

Section 2: HAZARD(S) IDENTIFICATION

Physical Hazards:	Flammable liquids	Category 2
Health Hazards:	Serious eye damage/eye irritation Specific target organ toxicity, single exposure	Category 2A Category 3 narcotic effects
Environmentals:	Not classified	
OSHA Hazards:	Not classified.	

Signal Word: Danger

Hazard Statement(s):
H225 - Highly flammable liquid and vapor.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.

Pictograms:



Precautionary Statement(s):
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting equipment.

P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing mist or vapor.
P264 - Wash ... thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P281 - Wear protective gloves/eye protection/face protection.
P303 + P361 + P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a poison center/doctor if you feel unwell.
P337 + P313 - If eye irritation persists: Get medical advice/attention.
P370 + P378 - In case of fire: Use appropriate media to extinguish.
P404 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards Not Otherwise Classified (HNOC): Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Other Information: None.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Common name/synonyms	CAS number	% Range
2-PROPANOL		67-63-0	99
Other components below reportable levels			1

**Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.*

Section 4: FIRST-AID MEASURES

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact: Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion: Rinse mouth. Get medical attention if symptoms occur.

Most Important Symptoms or Effects, Acute and Delayed:	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Indication of Immediate Medical Attention and Special Treatment, if Necessary:	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information:	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

Section 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Water fog. Alcohol resistant foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable Extinguishing Media:	Do not use water jet as an extinguisher, as this will spread the fire.
Specific Hazards Arising from the Chemical:	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special Protective Equipment and Precautions for Firefighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions:	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods:	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards:	Highly flammable liquid and vapor.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by

mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Environmental Precautions: Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

Clean Up Procedures: Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Section 7: HANDLING AND STORAGE

Precautions for Safe Handling Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. All equipment used when handling the product must be grounded. Take precautionary measures against static discharges. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for Safe Storage, Including Any Incompatibilities: Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Store in a cool, dry place out of direct sunlight. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see

Section 10 of the SDS).

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value
2-PROPANOL (CAS 67-63-0)	PEL	980 mg/m3 400 ppm

US. ACGIH Threshold Limit Values

Material	Type	Value
2-PROPANOL (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
2-PROPANOL (CAS 67-63-0)	STEL	1225 mg/m3 500 ppm
	TWA	980 mg/m3 400 ppm

Biological limit values

ACGIH Biological Exposure Indices

Material	Value	Determinant	Specimen	Sampling Time
2-PROPANOL (CAS 67-63-0)	40 mg/m3	Acetone	Urine	*

** - For sampling details, please see the source document.*

Appropriate Engineering Controls: Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

Individual Protection Measures, such as Personal Protective Equipment:
The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

Eye/face Protection: Chemical respirator with organic vapor cartridge and full face piece.

Skin Protection: Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Wear suitable protective clothing.

Respiratory Protection:	Chemical respirator with organic vapor cartridge and full face piece.
Thermal Hazards:	Wear appropriate thermal protective clothing, when necessary.
General Hygiene Considerations:	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Physical State	Liquid
Form	Liquid
Color	Colorless

Odor:	Alcohol
Odor Threshold:	Not Available
pH:	Not Available
Melting Point/Freezing Point:	-128 °F (-88.89 °C)
Boiling Point and Range:	180.82 °F (82.68 °C) estimated
Flash Point:	54.0 °F (12.2 °C)
Evaporation Rate:	Not Available
Flammability (solid, gas):	Not Applicable

Upper/Lower Flammability or Explosive Limits:

Flammability Limit - Lower (%):	2.5% estimated
Flammability Limit - Upper (%):	12% estimated
Explosive Limit - Lower (%):	Not Available
Explosive Limit - Upper (%):	Not Available

Vapor Pressure:	Not Available
Vapor Density:	Not Available
Relative Density:	Not Available
Solubility(ies):	Not Available

Partition Coefficient (n-octanol/water):	Not Available
Autoignition Temperature:	750.2 °F (399 °C) estimated
Decomposition Temperature:	Not Available
Viscosity:	Not Available

Other information

Density	6.55 lbs/gal
Explosive Properties	Not Explosive
Flammability Class	Flammable IB estimated
Oxidizing Properties	Not Oxidizing
Percent Volatile	100% estimated
Specific Gravity	0.79
VOC	99% estimated

Section 10: STABILITY AND REACTIVITY

Reactivity:	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur.
Conditions to Avoid:	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible Materials:	Acids. Strong oxidizing agents. Isocyanates. Chlorine.
Hazardous Decomposition Products:	No hazardous decomposition products are known.

Section 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:

Inhalation:	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin Contact:	No adverse effects due to skin contact are expected.

Eye Contact:	Causes serious eye irritation.
Ingestion:	Expected to be a low ingestion hazard.
Symptoms Related to the Physical, Chemical and Toxicological Characteristics:	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on Toxicological Effects:

Acute Toxicity:	Narcotic effects.
Skin Corrosion/irritation:	Prolonged skin contact may cause temporary irritation.
Serious Eye Damage/eye Irritation:	Causes serious eye irritation.

Respiratory or Skin Sensitization:

Respiratory Sensitization:	Not a respiratory sensitizer.
Skin Sensitization:	This product is not expected to cause skin sensitization.
Germ Cell Mutagenicity:	No data available to indicate product or any components present at greater than 0.1 % are mutagenic or genotoxic.
Carcinogenicity:	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity
Not listed.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.
US. National Toxicology Program (NTP) Report on Carcinogens
Not listed.

Reproductive Toxicity:	This product is not expected to cause reproductive or developmental effects.
Specific Target Organ Toxicity - Single Exposure:	May cause drowsiness and dizziness.
Specific Target Organ Toxicity - Repeated Exposure:	Not classified.
Aspiration Hazard:	Not an aspiration hazard.
Chronic Effects:	Prolonged inhalation may be harmful.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
2-PROPANOL (CAS 67-63-0)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	> 1400 mg/l, 96 hours

** Estimates for product may be based on additional component data not shown.*

Persistence and Degradability: No data is available on the degradability of this product.

Bioaccumulative Potential:

Partition coefficient n-octanol / water (log Kow)

2-PROPANOL	0.05

Mobility in Soil: No data available.

Other Adverse Effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13: DISPOSAL CONSIDERATIONS

Disposal Instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local Disposal Regulations: Dispose in accordance with all applicable regulations.

Hazardous Waste Code: The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from Residues/unused Products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated Packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14: TRANSPORT INFORMATION

DOT

UN Number:	UN1219
UN Proper Shipping Name:	ISOPROPANOL
Transport Hazard Class(es):	3
Packing Group:	II
Special Precautions for User:	Read safety instructions, SDS and emergency procedures before handling.
ERG Number:	129

DOT information on packaging may be different from that listed.

DOT:



Section 15: REGULATORY INFORMATION

US Federal Regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.
SARA 304 Emergency release notification
Not regulated.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.
SARA 311/312 Hazardous Chemical
Yes
SARA 313 (TRI reporting)
Not regulated.

Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

2-PROPANOL (CAS 67-63-0) Low priority

US State Regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

2-PROPANOL (CAS 67-63-0)

US. Massachusetts RTK - Substance List

2-PROPANOL (CAS 67-63-0)

US. New Jersey Worker and Community Right-to-Know Act

2-PROPANOL (CAS 67-63-0)

US. Pennsylvania Worker and Community Right-to-Know Law

2-PROPANOL (CAS 67-63-0)

US. Rhode Island RTK

2-PROPANOL (CAS 67-63-0)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

**A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)*
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16: OTHER INFORMATION

HMIS® ratings:

Health: 2
Flammability: 3
Physical hazard: 0

NFPA ratings:

Health: 2
Flammability: 3
Instability: 0

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Revision Information:

This document has undergone significant changes and should be reviewed in its entirety.