Safety Data Sheet - GHS
Isopropanol

Date of Revision: April 1, 2025

Section 1 - Chemical Product and Company Identification

Product Name	Isopropanol, Technical Grade
Synonyms	2-propanol; IPA; Isopropyl Alcohol; 1-methylethanol; 1-methylethyl alcohol; 2-hydroxypropane; i-propanol; propan-2-ol; sec-propanol.
Product Use	Alcohol – Industrial Use Solvent
Restriction on Use	Technical Grade.
Manufacturer/Supplier	CFR Chemicals 38451 Range Road 22 County of Red Deer T4E 2N6
General Assistance	1 (877) 269-3419
Emergency Telephone	**613-966-6666 (CANUTEC 24 Hour Phone Number)**
Date of Preparation of SDS	April 1, 2017

Section 2 – Hazard Identification

Signal Word Danger

GHS Pictogram(s)

Target Organs Central Nervous System

Hazard Statement:

H225	Highly flammable liquid and vapour.
H316	Causes mild skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness

Precautionary Statement

P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.

Response

P302 + P352	IF ON SKIN: Wash with plenty of water.
P303 + P361 _ P353	IF ON SKIN (or hair): Take off immediately all contaminate 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 CENTRE or doctor/physician if you feel unwell.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	if eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam to extinguish.

Storage

P403 + P233	Store in well-ventilated place. Keep contained tightly closed.
P403 + P235	Store in well-ventilated place. Keep cool.
P405	Store locked up.

Disposal

P501	Dispose of contents/container to an approved waste disposal unit.

GHS Classification

Flammable liquids (Category 2)
Skin corrosion/irritation (Category 3)
Serious eye damage/eye irritation (Category 2A)
Specific target organ toxicity - single exposure (Category 3), Central Nervous System

HMIS Classification

Health Hazard	**2**
Chronic Health Hazard	*****
Flammability	**3**
Physical Hazards	**0**

Potential Health Effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eye	Causes eye irritation.
Ingestion	May be harmful if swallowed.

Section 3 – Composition Information on Ingredients

HAZARDOUS INGREDIENT	Hazardous Ingredient, Synonyms	PERCENT	CAS NUMBER
Isopropanol	2-propanol; IPA; Isopropyl Alcohol; 1-methylethanol; 1-methylethyl alcohol; 2-hydroxypropane; i-propanol; propan-2-ol; sec-propanol.	90 – 100%	67-63-0

* = Various ** = Mixture *** = Proprietary

Chemical Formula C_3H_8O

Section 4 - First Aid Measures

Inhalation If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin Contact	Wash off with plenty of water. Consult a physician.
Ingestion	DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most Important Symptoms/Effects	
Acute	Causes serious eye irritation. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. Can cause central nervous system (CNS) depression.
Delayed	Adverse symptoms may include the following:, pain or irritation, watering, redness of eyes. Adverse symptoms may include the following:, nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness upon inhalation.
Note to Physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. No specific treatment.

Section 5 – Fire-Fighting Measures

Flash Point (°C)	12°C
Flash Point Method	PMCC
Auto Ignition Temperature	399°C
Conditions of Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/ hot surface. No smoking.
Extinguishing Media	Use water fog, alcohol-resistant foam, dry chemical or carbon dioxide
Unsuitable Extinguising Media	Water jet.
Unusual Fire/ Explosion Hazard	Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
Hazardous Combustion Products	Carbon oxides
Special Protective Equipment and Precautions for Firefighters	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. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6 – Accidental Release Measures

Personal precautions	Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe

	areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environmentmust be avoided.
Methods and materials for containment and cleaning up	Contain free liquid if possible. Pick up by covering with an activated carbon absorbent or other suitable inert absorbent material (e.g. sand, sawdust, general-purpose binder). Take up & place in closed containers. Ventilate area & wash spill site after material pickup is complete. Contain and dispose of wash water in accordance with local regulations.

Section 7 – Handling and Storage

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.
Conditions for safe storage	Keep container tightly closed in a dry and well-ventilated place.
Incompatible Conditions	Heat, Flames, Sparks.
Incompatible Materials	Ammonia. Strong acids. Strong oxidizers.

Section 8 – Exposure Controls / Personal Protection

Occupational Exposure Limits

Ingredient Name	**Exposure Limits**
Isopropanol	**Canada, Alberta, Occupational Health and Safety Cote (table 2: OEL)** STEL: 400ppm TWA: 200ppm **ACGIH TLV** TWA: 200ppm 8 Hours STEL: 500ppm **OSHA PEL** TWA: 400ppm

Personal protective equipment

Eye/face protection	Chemical safety glasses with side shields to prevent eye contact. As a general rule do not wear contact lenses when handling chemicals.
Skin protection	Wear chemical resistant gloves, impermeable protective clothing and safety shoes.
Respiratory protection	Use NIOSH approved respirators and components.
General hygiene Considerations	Handle in accordance with good industrial hygiene and safety.
Specific engineering controls	Use mechanical exhaust or laboratory fumehood to avoid exposure. Safety shower, eye wash, and fire extinguisher should be present.

Section 9 – Physical and Chemical Properties

Physical State	Liquid	**Water Solubility**	Completely soluble
Appearance & Odour	Clear, colourless, alcohol-	**Boiling Point**	82°C

	like odour.		
Vapour Pressure	97.7 mmHg @ 20.0°C	**Boiling Range**	Not Applicable
Odour Threshold	Not available.	**Melting Point**	-90°C
Evaporation Rate	32.4 mmHg @ 20.0°C	**Freezing Point**	-90°C
Vapour Density	2.1 (air = 1)	**Lower Explosive Limit (LEL)**	2 %
Specific Gravity	0.79	**Upper Explosive Limit (UEL)**	12.7 %
pH	Not available.	**Partition coefficient (n-octonal/water)**	-0.77
Flammability (Solid, Gas)	Not applicable.		
Decomposition Temperature	Not available.	**Viscosity**	Not available.

Section 10 – Stability and Reactivity

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous Reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames and sparks.
Materials to avoid	Ammonia. Strong acids. Strong oxidizers.
Hazardous decomposition Products	Hazardous decomposition products formed under fire conditions. - Carbon oxides. Other decomposition products - No data available

Section 11- Toxicological Information

Information on Likely Routes of Exposure

No data available

Acute toxicity

Product/Ingredient Name	Result	Species	Dose	Exposure
Isopropanol	LC50 Inhalation gas	Rat	73mg/L	4 Hr
	LD50 Oral	Rat	5045mg/kg	-
	LD50 Dermal	Rabbit	12870mg/kg	-

Skin corrosion/irritation Causes mild skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Not classified

Germ cell Mutagenicity No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity No data available.

Teratogenicity No data available.

Specific target organ toxicity - single exposure (Globally Harmonized System)
Inhalation, Oral – May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
No data available

Aspiration hazard No data available

Delayed and Immediate Effects and also Chronic Effects from Short and Long Term Exposure

Short Term Exposure

Potential immediate Health Effects No data available.

Potential Delayed Health Effects No data available.

Long Term Exposure

Potential immediate Health Effects No data available**.**

Potential Delayed Health Effects No data available.

Potential Chronic Effects No data available.

Synergistic effects No data available.

Section 12 – Ecological Information

Toxicity

Product / Ingredient Name	Result	Species	Exposure
Isopropanol	Acute LC50 9640mg/L	Fish – Pimephales promelas	96 Hr
	Acute EC50 5102mg/L	Daphnia – Daphnia magna	24 Hr

Persistence and degradability

Biodegradability Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions.

Bioaccumulative potential No bioaccumulation is to be expected (low P_{ow} ≤4)

Mobility in soil No data available

PBT and vPvB assessment No data available

Other adverse effects No data available

Section 13 – Disposal Considerations

Product This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging Dispose of as unused product.

Section 14 - Transportation Information

CANADA Transportation of Dangerous Goods (TDG)

Shipping Name	UN1219, Isopropanol, 3. PG II
Class	3
UN Number	UN1219
Packaging Group:	II
Label	
Environmental hazards	Not a marine pollutant.
Transportation in bulk, if applicable	No data available
Special Precautions	No data available

Section 15 – Regulatory Information

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act)
All components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

TSCA Inventory (8b) All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

Section 16 – Other Information

REVISION SUMMARY:

Date of Preparation	April 1, 2017
Date of Revision	April 1, 2025

SDS Prepared by: CFR Lab Manager

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