

### Section 1 - Chemical Product and Company Identification

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

### Section 2 – Hazard Identification

**Signal Word**  
**GHS Pictogram(s)**

Danger



**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.



# Safety Data Sheet - GHS

## Isopropanol

Date of Revision: March 15, 2022

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.
<b>GHS Classification</b>	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
<b>HMIS Classification</b>	
Health Hazard	2
Chronic Health Hazard	*
Flammability	3
Physical Hazards	0
<b>Potential Health Effects</b>	
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. * = Various ** = Mixture *** = Proprietary	90 – 100%	67-63-0
Chemical Formula	C <sub>3</sub> H <sub>8</sub> O		

### Section 4 - First Aid Measures

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



# Safety Data Sheet - GHS

## Isopropanol

Date of Revision: March 15, 2022

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>Skin Contact</b>	Wash off with plenty of water. Consult a physician.
<b>Ingestion</b>	DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
<b>Most Important Symptoms/Effects</b>	
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.
<b>Note to Physician</b>	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. No specific treatment.

### Section 5 – Fire-Fighting Measures

<b>Flash Point (°C)</b>	12°C
<b>Flash Point Method</b>	PMCC
<b>Auto Ignition Temperature</b>	399°C
<b>Conditions of Flammability</b>	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.
<b>Extinguishing Media</b>	Use water fog, alcohol-resistant foam, dry chemical or carbon dioxide
<b>Unsuitable Extinguishing Media</b>	Water jet.
<b>Unusual Fire/Explosion Hazard</b>	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.
<b>Hazardous Combustion Products</b>	Carbon oxides
<b>Special Protective Equipment and Precautions for Firefighters</b>	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

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

<b>Environmental precautions</b>	areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
<b>Methods and materials for containment and cleaning up</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
	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

<b>Precautions for safe handling</b>	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.
<b>Conditions for safe storage</b>	Keep container tightly closed in a dry and well-ventilated place.
<b>Incompatible Conditions</b>	Heat, Flames, Sparks.
<b>Incompatible Materials</b>	Ammonia. Strong acids. Strong oxidizers.

### Section 8 – Exposure Controls / Personal Protection

#### Occupational Exposure Limits

##### Ingredient Name

Isopropanol

##### Exposure Limits

**Canada, Alberta, Occupational Health and Safety Code (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

<b>Physical State</b>	Liquid	<b>Water Solubility</b>	Completely soluble
<b>Appearance &amp; Odour</b>	Clear, colourless, alcohol-	<b>Boiling Point</b>	82°C

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

## Section 10 – Stability and Reactivity

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



# Safety Data Sheet - GHS

## Isopropanol

Date of Revision: March 15, 2022

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.

<b>Reproductive toxicity</b>	No data available.
<b>Teratogenicity</b>	No data available.
<b>Specific target organ toxicity - single exposure (Globally Harmonized System)</b>	Inhalation, Oral – May cause drowsiness or dizziness.
<b>Specific target organ toxicity - repeated exposure (Globally Harmonized System)</b>	No data available
<b>Aspiration hazard</b>	No data available

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

#### Short Term Exposure

<b>Potential immediate Health Effects</b>	No data available.
<b>Potential Delayed Health Effects</b>	No data available.

#### Long Term Exposure

<b>Potential immediate Health Effects</b>	No data available.
<b>Potential Delayed Health Effects</b>	No data available.
<b>Potential Chronic Effects</b>	No data available.

<b>Synergistic effects</b>	No data available.
----------------------------	--------------------

## Section 12 – Ecological Information

### Toxicity

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

### Persistence and degradability

<b>Biodegradability</b>	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions.
-------------------------	--

<b>Bioaccumulative potential</b>	No bioaccumulation is to be expected (low $P_{ow} \leq 4$ )
----------------------------------	---

<b>Mobility in soil</b>	No data available
-------------------------	-------------------

<b>PBT and vPvB assessment</b>	No data available
--------------------------------	-------------------

<b>Other adverse effects</b>	No data available
------------------------------	-------------------

## Section 13 – Disposal Considerations

<b>Product</b>	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.
----------------	---

<b>Contaminated packaging</b>	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 March 15, 2022

SDS Prepared by: CFR Lab Manager

CFR Chemicals Inc. provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. CFR Chemicals Inc. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, CFR CHEMICALS INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OR RELIANCE UPON THIS INFORMATION.