SAFETY DATA SHEET

1 – PRODUCT AND COMPANY IDENTIFICATION

Product Name: **ISOPROPANOL 99%**

Product code: P-7050

Product use: For laboratory or industrial use only

Supplier: Cochimbec Inc.
8561 chemin Dalton
T.M.R., Québec
H4T 1V5 CANADA

Telephone: 514-990-1935
Emergency Telephone: (CANUTEC): 613-996-6666

2 – HAZARDS IDENTIFICATION

GHS Classification: Flammable liquids (Category 2)
Skin irritation (Category 3)
Eye irritation (Category 2A)
Specific target organ toxicity – single exposure (Category 3)

Signal word:		**DANGER**
Hazard statement:	H225	Highly flammable liquid and vapour.
	H316	Causes mild skin irritation.
	H319	Causes serious eye irritation.
	H336	May cause drowsiness or dizziness.
Precautionary statement:	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Other hazards:	Inhalation:	May be harmful if inhaled. Extremely irritating to mucous membranes and upper respiratory tract.
	Eyes:	Causes eye irritation.
	Skin:	Causes irritation on open wound.

	Ingestion:	Harmful if swallowed.

3 – COMPOSION / INFORMATION ON INGREDIENTS

Synonyms: **Isopropyl Alcohol, 2- Propanol, sec-Propyl Alcohol**

INGREDIENT	Concentration	CAS No.	EC No.	Index No.
Isopropanol	99-100 %	67-63-01	200-661-7	603-117-00-0

4 – FIRST AID MEASURES

Inhalation:	Move victim to fresh air. If victim is not breathing, give artificial respiration and call for medical assistance.
Skin contact:	Wash with soap and water. Consult a physician if irritation persists.
Eye contact:	Rinse thoroughly with water for 15 minutes. If irritation persists, continue rinsing and consult 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	Breathing difficulties. May cause central nervous system depression. Symptoms of overexposure or inhalation of high vapour concentration may cause headache, dizziness, tiredness, nausea and vomiting.

5 – FIRE-FIGHTING MEASURES

Extinguishing media:	Water spray, alcohol resistant foam, dry chemical, carbon dioxide. Use water spray to cool unopened containers.
Combustion Exposure Hazards:	Hazardous decomposition products formed under fire condiiotions: Carbon Oxides.
Fire-Fighting equipment and precaution:	Wear self-contained breathing apparatus for firefighting if necessary.
Sensitivity to mechanical impact:	Not sensitive.
Sensitivity to static discharge:	N / D

NFPA Risk 0=Low 4=High	HEALTH	FLAMMABILITY	REACTIVITY	HAZARDS
	1	3	0	

6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use personal protective equipment. Avoid contact with skin and eyes. Avoid inhaling vapour or mist. Use explosion proof equipment. Keep away for sources of ignition. Evacuate people to safe areas. Avoid accumulation of vapours that can form explosive concentrations.
Environmental Precautions:	Prevent further leakage or spillage using personal protection. Avoid product entering into drains.

Method & Material for containment and cleaning up:	Contain spillage while wearing personal protection and using spark proof equipment. Remove all source of ignition. Soak up with inert absorbent material. Keep in suitable closed container for disposal. Product may be wet-brushed and placed in a container for disposal according to local, state and federal regulations.

7 – HANDLING AND STORAGE

Precautions for safe handling:	Wear personal protective equipment. Keep away from open flame, hot surfaces and sources of ignition. Use explosion proof equipment. Take precautionary measures against static discharges. Do not get on skin, eyes and clothing. Do not breath vapours or mist. Ground any metal equipment.
Conditions for Safe Storage:	Store in a cool, dry place away from incompatibles, heat and possible source of ignition. Keep container tightly closed in a well-ventilated area.

8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

COMPONENT	CAS-No	VALUE	CONTROL PARAMETERS	BASIS
Isopropanol	67-63-1	TWA	200 ppm	Ontario OEL
		STEL	400 ppm	Ontario OEL
		TWA	400 ppm 985 mg/m^3	Québec OEL
		STEL	500 ppm 1230 mg/m^3	Québec OEL
		TWA	400 ppm 980 mg/m^3	Mexico OEL
		STEL	500 ppm 1225 mg/m^3	Mexico OEL
		TWA	400 ppm 980 mg/m^3	NIOSH - IDLH
		STEL	500 ppm 1225 mg/m^3	NIOSH - IDLH
		IDLH	2000 ppm	NIOSH - IDLH
		TWA	400 ppm 980 mg/m^3	USA. OSHA – PEL
		TWA	200 ppm	USA. ACGIH Threshhold Limits Values (TLV)
		STEL	400 ppm	USA. ACGIH Threshhold Limits Values (TLV)

Eye Protection:	Safety glasses or chemical safety goggles.
Hand Protection:	Use appropriate gloves.
Body Protection:	Use impervious apron or body suit. The protective clothing must be flame retardant and antistatic.
Respiratory Protection:	Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face air respirator. Use NIOSH (US) or CEN (EU) approved respirators.

Engineering Controls:	Use antispark equipment for exhaust or fume hood. Ensure adequate ventilation.

9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.	**Auto ignition temperature:**	425 °C
Color:	Colourless	**Upper Explosion Limit:**	12.7 % by Volume
Odour:	Alcohol-like	**Lower Explosion Limit:**	2 % by Volume
Odour threshold::	N / D	**Vapour pressure:**	43 mm Hg @ 20 °C
pH:	N / D	**Vapour density: (air = 1)**	2.1 @ 20 °C
Melting point:	-89.5°C	**Relative density**	0.785
Boiling point:	82°C @ 760 mm Hg	**Water solubility:**	Completely soluble
Boiling range:	81-83°C @ 760 mm Hg	**Decomposition temperature:**	N / D
Density	0.785 g/mL @ 25°C	**Refractive Index:**	1.377 @ 20 °C
Flash point:	12 °C Closed cup	**Viscosity:**	2.27 mPa.s @ 20 °C
Evaporation rate: (n-Butyl Acetate = 1)	1.7	**Partition coeficient: n-octanol / water**	Log Pow 0.05

10 – STABILITY AND REACTIVITY

Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Vapours may form explosive mixture with air if there is a source of ignition or if product comes in contact with incompatible materials.
Conditions to avoid:	Heat, flames and sparks.
Incompatible materials:	Bases. Oxidizing agents. Reducing agents. Phosphorous Oxychloride. Acid Anhydrides. Aluminum, Acids, Halogenated compounds.
Hazardous decomposition products:	Hazardous decomposition products formed under fire conditions: Carbon Oxides.

11 – TOXICOLOGICAL INFORMATION

COMPONENTS	**LD_{50} ORAL**	**LD_{50} DERMAL**	**LC_{50} INHALATION**
ISOPROPANOL	5,045 mg/kg (rat)	12,800 mg/kg (rabbit)	16,000 mg/L 8 h.
Skin Corrosion / irritation	Rabbit – Mild skin irritation		
Serious eye damage / eye irritation	Rabbit – Eye irritation – 24 h		
Respiratory or skin sensitisation	No data available.		
Germ cell Mutagenicity	No data available.		
Carcinogenicity	This product **does not** contain any compounds listed by NTP, IARC, ACGIH or EPA classified as a carcinogen.		
Reproductive toxicity	No data available		
Teratogenicity	May cause birth defects based on animal test data. Showed teratogenic effects in animal experiments.		

Aspiration hazard	No data available
Symptoms of Exposure	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. Prolonged or repeated exposure can cause central nervous system depression, nausea, headache, vomiting, narcosis, and drowsiness. Overexposure may cause mild, reversible liver effects. Aspiration may lead to lung oedema, pneumonia.
Synergistic effects	No data available
Addition information	RTECS: NT8050000

12 – ECOLOGICAL INFORMATION

COMPONENTS	**Toxicity to fish**	**Toxicity to daphnia and other aquatic invertebrates**	**Toxicity to algea**
ISOPROPANOL	LC_{50} – Pimephales promelas (Fathead minnow) – 9,640 mg/l – 96 h.	LC_{50} – Daphnia Magna (Water flea) – 8,800 mg/l – 48 h.	EC_{50} Desmodesmus subspicatus (Green algea) > 2000 mg/L - 72 h EC_{50} Algea > 1000 mg/L - 24h
Persistence and degradability	No data available		
Bio-accumulative potential	No data available		
Mobility in soil	No data available		
PBT and vPvB assessment	No data available		
Other adverse effects	No data available		

13 – DISPOSAL CONSIDERATIONS

Product	Burn in a chemical incinerator equipped with an afterburner and scrubber. Exert extra care in igniting as this product is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Federal and local laws governing disposal of material can differ. Ensure proper disposal compliance with authorities before disposal.
Contaminated clothing	Let dry, then wash before reusing clothes.
Contaminated packaging	Dispose as unused product above.

14 – TRANSPORT INFORMATION

	TDG	IMDG	IATA
Shipping Name:	ISOPROPANOL	ISOPROPANOL	ISOPROPANOL
UN-number:	UN1219	UN1219	UN1219
Class & Subclass:	3	3	3
Packing Group:	II	II	II
Limited Quantity:	1 L		
ERAP Index:	N / A	N / A	N / A
ERG #:	129	129	129
Inhalation Toxicity:	No	No	No
Marine Pollutant	No	No	No

15 – REGULATORY INFORMATION

US Regulations	SDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200 Flammable liquid, Target Organ Effect, Irritant.
Canada Classification	Canada WHMIS: Class B-2: Flammable liquids. Class D-2B: Toxic material causing other toxic effects.
International	Europe EINECS Numbers: 200-661-7

16 – OTHER INFORMATION

Information on the preparation of SDS:	Prepared by Cochimbec Inc. Safety Personnel Sept. 11, 2015 Revision 3 I.C. 1,2,3,4,8,
Abbreviations:	ACGIH = American Conference of Governmental Industrial Hygienists ASTM = American Society for Testing and Materials BCF = Bioconcentration Factor CAS = Chemical Abstract Services CCOHS = Canadian Center for Occupational Health & Safety CEN (EU) = Committée Européen de Normalisation CERCLA = Comprehensive Environmental Response Compensation & Liability Act CFR = Code of Federal Regulations CMR = Carcinogenic-mutagenic-toxic for reproduction CPR = Controlled Products Regulations DIN = German Institute for Standardisation DOT = Department of Transport EC_{50} = Half maximal effect concentration

	EINECS = European Inventory of Existing Commercial Chemical Substances GHS = Global Harmonization System GLP = Good Laboratory practice GMO = Genetic Modified Organism IARC = International Agency for research on Cancer IATA = International Air Transport Association ISO = International Organisation for Standardisation IDLH = Immediate danger to life and health IMDG = International Maritime Dangerous Goods LC_{50} = Lethal concentration causing 50% death LD_{50} = Lethal dose causing 50% death LOAEL = Lowest Observed Adverse Effect Level LOEL = Lowest Observed Effect Level N/A = Not Applicable N/D = No Data N/E = Not Established NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety & Health NTP = National Toxicology Program OECD = Organisation for Economic Co-operation & Development OEL = Occupational exposure limit OHSC = Occupational health & safety council (committee) OSHA = Occupational Safety & Health Administration PBT = Persistent, Bioaccumulation, Toxic PEL = Permissible Exposure Limit RCRA = Resource Conservation & Recovery Act RTECS = Registry of Toxic Effects of Chemical Substances SARA = Species at Risk Act STEL = Short term exposure limit STEV = Short term exposure value STOT = Specific Target Organ Toxicity TDG = Transport of Dangerous Goods TLV = Threshold limit value TMD = Transport de Matières Dangereuses TSCA = Toxic Substance Control Act TWA = Time weighted Average TWAEV = Time weighted average exposure value UN = United Nations VOC = Volatile Organic Compounds WEEL = Workplace Environment Exposure Limit WHO = World Health Organisation WHMIS = Workplace Hazardous Material Information System W/V = Weight / Volume W/W = Weight / Weight

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End of Safety Data Sheet