SAFETY DATA SHEET

1. Identification

Product identifier	**Reliable Instant Hand Sanitizer**
Other means of identification	None
Recommended use	Hand Sanitizer
Recommended restrictions	This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name	Reliable Maintenance Products
Address	345 Regent Street Sudbury, ON PEC 4E1 Canada
Telephone	(705) 675-5281
e-mail	reliable@reliablemaintenance.ca
Emergency phone number	CANUTEC: (613) 996-6666
Supplier	See above

2. Hazard Identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity following single exposure	Category 3 narcotic effects
Environmental hazards	Not classified	

Label elements

Signal word	Warning
Hazard Statement	Highly flammable liquid and vapour. Causes serious ere irritation. May cause drowsiness of dizziness.

Precautionary statement

Prevention	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Avoid breathing mist or vapour. Use only outdoors or well-ventilated area.
Response	In case of fire. Use appropriate media to extinguish. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INHALED: remove person to fresh air and keep comfortable for breathing. Call POISON CENTRE/doctor if you feel unwell.
Storage	Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards	None known
Supplemental information	None

3. Composition/information on ingredients

Mixtures

Chemical Name	Common name and synonyms	CAS number	%
Isopropanol		67-63-0	70
Glycerine		56-81-5	2.2

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

Inhalation	IF INHALED remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
Skin Contact	IF ON SKIN (or hair): Wash with water and soap as a precaution. Get medical attention if irritation develops and persists.
Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Rinse mouth. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mount if victim is unconscious, or is convulsing. Obtain medical attention.
Most important symptoms/effects, acute and delayed	Causes serious eye irritation
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General information	In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice. Keep out of reach of children.

5. Fire-fighting measures

Suitable extinguishing media	Water fog, Alcohol resistant foam. Alcohol foam. Dry chemical. Carbon dioxide.
Unsuitable extinguishing media	Do not use water het as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. During fire, gasses hazardous to health may be formed.
Hazardous combustion products	May include and are not limited to: Oxides of carbon.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Firefighting 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 vapour. Vapour may accumulate. Firefighters should wear a self-contained breathing apparatus.

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 vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

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. Cover with plastic sheet to prevent spreading. 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.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

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. 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 vapour. Avoid contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. When using do not eat or drink.

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. Store in a cool, dry place out of direct sunlight. 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). Keep out of reach of children.

8. Exposure controls/Personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Material	Type	Value
Isopropyl Alcohol, 99% (CAS Mixture)	STEL	400 ppm
	TWA	200 ppm
Components	Type	Value
Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Material	Type	Value
Isopropanol, 99% (CAS Mixture)	STEL	984 mg/m3 400 ppm
	TWA	492 mg/m3 200ppm
Components	**Type**	**Value**
Isopropanol (CAS 67-63-0)	STEL	984 mg/m3 400 ppm
	TWA	492 mg/m3 200ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Material	Type	Value
Isopropanol, 99% (CAS Mixture)	STEL	400 ppm
	TWA	200ppm

Components	Type	Value
Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Material	Type	Value
Isopropanol, 99% (CAS Mixture)	STEL	400 ppm
	TWA	200ppm

Components	Type	Value
Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Material	Type	Value
Isopropanol, 99% (CAS Mixture)	STEL	400 ppm
	TWA	200ppm

Components	Type	Value
Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200ppm

Canada. Quebec OELs. (Ministry of Labour - Regulation Respecting the Quality of the Work Environment)

Material	Type	Value
Isopropanol, 99% (CAS Mixture)	STEL	1230 mg/m3 500ppm
	TWA	983 mg/n3 400ppm

Components	Type	Value
Isopropanol (CAS 67-63-0)	STEL	1230 mg/m3 500ppm
	TWA	983 mg/n3 400ppm

Biological limit values

ACGIH Biological Exposure Indices

Material	Value	Determinant	Specimen Sampling Time
Isopropanol, 99% (CAS Mixture)	40 mg/L	Acetone	Urine *

Components	Value	Determinant	Specimen Sampling Time
Isopropanol (CAS 67-63-0)	40 mg/L	Acetone	Urine *

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

Appropriate engineering controls 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.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear face-shield and protective suit for abnormal processing problems.

Skin Protection	
Hand Protection	No special equipment required.
Other	No special measures necessary provided product is used correctly.
Respiratory Protection	No personal respiratory protective equipment normally required.
Thermal hazards	Not applicable
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes.

9. Physical and chemical properties

Appearance	Clear
Physical State	Liquid
Form	Liquid
Colour	Clear colourless
Odour	Alcohol
Odour threshold	50 ppm
pH	Not available
Melting point/freezing point	-88.5 °C (-127.3 °F)
Initial boiling point and boiling range	82.5 °C (180.5 °F) 101.325 kPa
Flash point	11.6 °C (52.9 °F) TCC
Evaporation rate	2.3 2.3 (butyl acetate = 1)
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	
Flammability limit-lower (%)	Not available
Flammability limit-upper (%)	Not available
Explosive limit-lower (%)	Not available
Explosive limit-upper (%)	Not available
Vapour pressure	6.05 kPa at 25 °C
Vapour density	2.1
Relative density	Not available
Solubility(ies)	
Solubility (Water)	Miscible
Partition coefficient (n-octanol/water)	.05
Auto-ignition temperature	399 °C (750.2 °F)
Decomposition temperature	Not available
Viscosity	Not available
Other Information	
Density	0.78 g/cm3 estimated at 20 °C
Dynamic viscosity	0.58 mPa.s (75 °C (167 °F))
Explosive properties	Not explosive.
Flash point class	Flammable IB

Heat combustion (NFPA 30B)	27.4 kJ/g
Kinematic viscosity	0.7339 mm²/s estimated
Molecular formula	C3-H8-O
Molecular weight	60.1 g/mol
Oxidising properties	Not oxidising.
Specific gravity	0.79 at 20 °C
Surface tension	20.93 mN/m (25 °C (77 °F))

10. Stability and reactivity

Reactivity	This product may react with strong oxidising agents.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous ration known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Do not mix with other chemicals.
Incompatible materials	Acids. Strong oxidising agents. Isocyanates. Chlorine. Soft metals.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

11. Toxicological information

Information on 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	May cause stomach distress, nausea or vomiting.
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 Not classified based on available information

Components	**Species**	**Test results**
Isopropanol (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	2800 mg/kg, HSDB
		16.4 ml/kg, 24 Hours, ECHA
Inhalation		
LD50	Rat	> 10000 ppm, 6 Hours, ECHA16970 mg/l/4h, HMIRA
Oral		
LD50	Dog	4797 mg/kg, HSDB
	Mouse	3600 mg/kg, HSDB
	Rabbit	5030 mg/kg, HSDB
	Rat	5 g/kg, HSDB
		5.8 g/kg, ECHA

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Exposure minutes	Not available
Erythema value	Not available
Oedema value	Not available
Serious eye damage/eye irritation	Causes serious eye irritation
Corneal opacity value	Not available
Iris lesion value	Not available
Conjunctival oedema reddening value	Not available
Conjunctival oedema value	Not available
Recover days	Not available
Respiratory or skin sensitisation	
Respiratory sensitisation	Not a respiratory sensitizer.
Skin sensitisation	This product is not expected to cause skin sensitisation
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	See below
ACGIH Carcinogens	
Isopropanol (CAS 67-63-0)	A4 Not classifiable as a human carcinogen
Canada - Manitoba OELs: carcinogenicity	
2-Propanol (CAS 67-63-0)	Not classified as a human carcinogen.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity-single exposure	May cause drowsiness.
Specific target organ toxicity-repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.
Further information	Not available.

12. Ecological information

Ecotoxicity See below

Ecotoxicological data

Components		Species	Test results
Isopropanol (CAS 67-63-0)			
Algae	IC50	Algae	1000 mg/L, 72 Hours
Crustacea	EC50	Daphnia	13299 mg/L, 48 Hours
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	> 1400 mg/L, 96 hours

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	
Mobility in soil	No data available.
Mobility in general	Not 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.

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.

14. Transport information

General	Canada: TDG Proof of Classification: In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue. If applicable, the technical name and the classification of the product will appear below.

Transportation of Dangerous Goods (TDG – Canada)

Basic shipping requirements:

UN number	UN1219
Proper shipping name	ISOPROPYL ALCOHOL
Hazard class	3
Packing group	II

TDG

15. Regulatory

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number

Isopropanol (CAS 67-63-0) 1 TONNES

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS status Controlled

Inventory Status

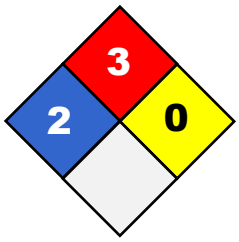
Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non- Domestic Substances List (NDSL)	No

* “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 2
FLAMMIBILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



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Other information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

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