SAFETY DATA SHEET



Revision date: 28-Aug-2024

Revision Number 7

Section 1: Identification

Product identifier

Product Name ISOPROPANOL
Product Code(s) 000030111201

Synonyms Isopropyl alcohol; 2-Propanol; Isopropan-2-ol.

Recommended use Solvent

Supplier

Ixom Central Pacific Ltd Company Number: 1030

Street Address: Lots 3&4 Wailada Industrial Estate

Lami Fiji

Telephone Number: +67 9 336 1144

Facsimile: +67 9 336 1500

+61 3 9663 2130 (International, Australia, All Hours)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

Section 2: Hazard identification

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS). Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

GHS Classification

Flammable liquids	Category 2
Serious eye damage/eye irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3

Label elements

Flame

Exclamation mark





Signal word DANGER

Hazard statements

H225 - Highly flammable liquid and vapor

H319 - Causes serious eye irritation

H336 - May cause drowsiness or dizziness

Precautionary Statements - 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 only non-sparking tools.

Take action to prevent static discharges.

Use explosion-proof electrical/ventilating/lighting/.?/equipment.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wash hands and face thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/clothing and eye/face protection.

Precautionary Statements - Response

Specific treatment (see First aid on this SDS).

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 ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Take off contaminated clothing and wash before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

In case of fire: Use CO2, dry chemical, or foam for extinction.

Precautionary Statements - Storage

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

Other hazards which do not result in classification

Repeated exposure may cause skin dryness or cracking.

Chemical name	CAS No.	Weight-%
Isopropyl alcohol	67-63-0	99-100%

Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance. For advice, contact a Poisons

Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

Inhalation Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If

breathing has stopped, give artificial respiration. Get medical attention immediately.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek

immediate medical attention/advice.

Skin contactWash off immediately with soap and plenty of water while removing all contaminated clothes

and shoes. (Call a physician if symptoms occur).

Ingestion Clean mouth with water. Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give

anything by mouth to an unconscious person. Get medical attention if symptoms occur.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s)

involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms Irritating. May cause redness and tearing of the eyes. Drowsiness. Dizziness.

Effects of Exposure No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Suitable Extinguishing Media

Suitable extinguishing media Alcohol resistant foam is the preferred firefighting medium but, if it is not available, fine

water spray or water fog can be used.

Unsuitable extinguishing media High volume water jet.

Specific hazards arising from the chemical

Specific hazards arising from the

chemical

Highly flammable. Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Most vapors are heavier than air. Vapors may spread along ground and collect in low or confined areas (sewers, basements, tanks). Pay attention to flashback. Flash back possible over considerable

distance.

Hazardous combustion products Carbon oxides.

Special protective actions for fire-fighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

Hazchem code •2YE

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Ensure

adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch or walk through spilled material. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. Use personal protective equipment as required. See section 8 for

more information.

Other information Ventilate the area.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far

ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for

later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert

absorbent material. Pick up and transfer to properly labeled containers. Use non-sparking

tools.

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing

vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Ground and bond all lines and equipment associated with product system. All equipment should be non-sparking. All

equipment may need to be explosion-proof based on a risk assessment.

General hygiene considerations Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work

area and clothing is recommended. Wash hands before breaks and immediately after

handling the product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from

foodstuffs and sources of heat or ignition. Keep container closed when not in use.

Incompatible materials Acids. Aldehydes. Halogens. Oxidizing agents. Ethylene oxide. Amines. Ammonia. Acid

anhydrides. Alkalis. Isocyanates. Phosgene. Aluminium.

Control parameters

Exposure Limits

Chemical name	Australia	New Zealand	ACGIH TLV
Isopropyl alcohol	TWA: 400 ppm	TWA: 400 ppm	TWA: 200 ppm
67-63-0	TWA: 983 mg/m ³	TWA: 983 mg/m ³	STEL: 400 ppm
	STEL: 500 ppm	STEL: 500 ppm	
	STEL: 1230 mg/m ³	STEL: 1230 mg/m ³	

Chemical name	European Union	United Kingdom	Germany DFG
Isopropyl alcohol	-	TWA: 400 ppm	TWA: 200 ppm
67-63-0		TWA: 999 mg/m³	TWA: 500 mg/m ³
		STEL: 500 ppm	Peak: 400 ppm
		STEL: 1250 mg/m ³	Peak: 1000 mg/m ³

Chemical name	Australia	ACGIH	European Union
Isopropyl alcohol	-	40 mg/L	-
67-63-0		-	

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day

working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Appropriate engineering controls

Engineering controls Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.



Eye/face protection Goggles.

Skin and body protection Antistatic boots. Overalls. Wear fire/flame resistant/retardant clothing.

Hand protection Impervious gloves.

Respiratory protection If determined by a risk assessment an inhalation risk exists, wear an organic vapour

respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

Environmental exposure controls No information available.

Thermal hazards No information available.

Information on basic physical and chemical properties

Physical stateLiquidAppearanceClearColorColourless

Odor Pleasant , Ethanol -like
Odor threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

None known 5-6 at 395 g/L (20°C) Ha pH (as aqueous solution) No data available None known Melting point / freezing point -89.5°C None known Boiling point / boiling range 82-83°C None known Flash point 12°C None known **Evaporation rate** 2.9 (n-Butyl acetate=1) None known Flammability (solid, gas) No data available None known Flammability Limit in Air None known

Page 5/13

Upper flammability or explosive 12.7% (V)

limits

Lower flammability or explosive 2% (V)

limits

None known Vapor pressure 43.2 hPa @20°C Vapor density 2.07 (air=1) None known Relative density 0.78-0.79 None known Water solubility No data available None known Solubility(ies) Miscible in water None known **Partition coefficient** No data available None known **Autoignition temperature** 425°C None known No data available **Decomposition temperature** None known Kinematic viscosity No data available None known No data available **Dynamic viscosity** None known

Other information

Reactivity

Reactivity Hygroscopic: absorbs moisture or water from surrounding air. Reacts with air or water to

form peroxides.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes. May be ignited by friction, heat, sparks or flames.

Possibility of hazardous reactions

Possibility of hazardous reactions Vapours can form an explosive mixture with air. May form explosive peroxides. Reacts with

aluminium at high temperatures.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Conditions to avoid Heat, flames and sparks. Static discharge (electrostatic discharge).

Incompatible materials

Incompatible materials Acids. Aldehydes. Halogens. Oxidizing agents. Ethylene oxide. Amines. Ammonia. Acid

anhydrides. Alkalis. Isocyanates. Phosgene. Aluminium.

Hazardous decomposition products

Hazardous decomposition products Carbon oxides.

Information on likely routes of exposure

Product Information No adverse health effects expected if the chemical is handled in accordance with this Safety

Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is

mishandled and overexposure occurs are:

Inhalation May cause drowsiness or dizziness. May cause central nervous system depression with

nausea, headache, dizziness, vomiting, and incoordination.

Eye contact Causes serious eye irritation.

Skin contact May cause irritation. Repeated exposure may cause skin dryness or cracking.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause

central nervous system depression.

Symptoms Irritating. May cause redness and tearing of the eyes. Drowsiness. Dizziness.

Acute toxicity .

Numerical measures of toxicity - Product Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Isopropyl alcohol	>2000 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	> 10000 ppm (Rat) 6 h

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Not classified.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization Not a skin sensitizer. (guinea pig).

Germ cell mutagenicity Not mutagenic in AMES Test.

Carcinogenicity Not listed as carcinogenic according to IARC.

(IARC - International Agency for Research on Cancer).

Chemical name	Australia	European Union	IARC
Isopropyl alcohol - 67-63-0	-	-	Group 3

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity No information available.

STOT - single exposure May cause drowsiness or dizziness.

STOT - repeated exposureNo information available.

Aspiration hazard No information available.

Ecotoxicity

Aquatic ecotoxicity Keep out of waterways.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
			Illicioorganisms	
Isopropyl alcohol	EC50: >1000mg/L (96h,	LC50: =9640mg/L (96h,	-	EC50: =13299mg/L
	Desmodesmus	Pimephales promelas)		(48h, Daphnia magna)
	subspicatus)	LC50: =11130mg/L		
	EC50: >1000mg/L (72h,	(96h, Pimephales		
	Desmodesmus	promelas)		
	subspicatus)	LC50: >1400000µg/L		
		(96h, Lepomis		
		macrochirus)		

Terrestrial ecotoxicity There is no data for this product.

Persistence and degradability

Persistence and degradability Readily biodegradable.

Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
Isopropyl alcohol	0.05

Mobility

Mobility No information available.

Other adverse effects

Other adverse effects No information available.

Waste treatment methods

Waste from residues/unused

products contractor.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld

containers. Empty containers should be taken to an approved waste handling site for

Refer to Waste Management Authority. Dispose of material through a licensed waste

recycling or disposal.

See section 8 for more information

ADG Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code

(ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

UN number or ID number 1219

Proper shipping name ISOPROPANOL (ISOPROPYL ALCOHOL)

Transport hazard class(es) 3
Packing group || Hazchem code •2YE

IATA Classified as Dangerous Goods by the criteria of the International Air Transport Association

(IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

UN number 1219

UN proper shipping name ISOPROPYL ALCOHOL

Transport hazard class(es) 3
Packing group | |

IMDG Classified as Dangerous Goods by the criteria of the International Maritime Dangerous

Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN number 1219

UN proper shipping name ISOPROPANOL (ISOPROPYL ALCOHOL)

Transport hazard class(es)

Packing group

IMDG EMS Fire

F-E

IMDG EMS Spill

S-D

Marine pollutant Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Australia

Classified as a hazardous substance in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS). Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail: DANGEROUS GOODS.

See section 8 for national exposure control parameters

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

No poisons schedule number allocated

Poison Schedule Number Not applicable

Australian Industrial Chemicals Introduction Scheme (AICIS)

Contact supplier for inventory compliance status

Chemical name	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Isopropyl alcohol - 67-63-0	Present	-

Threshold quantity (T)

50 000

Illicit Drug Precursors/Reagents

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

Major hazard (accident/incident planning) regulation

Verify that license requirements are met

Hazardous chemical

Liquids that meet the criteria for Class 3 Packing Group II or III

National pollutant inventory

Subject to reporting requirement

out to reporting requirement	Nic i II (C)
Chemical name	National pollutant inventory
Isopropyl alcohol - 67-63-0	20 MW Threshold category 2b total
	60000 MWH Threshold category 2b total
	1 tonne/h Threshold category 2a total
	25 tonne/yr Threshold category 1a total
	400 tonne/yr Threshold category 2a total
	2000 tonne/yr Threshold category 2b total

International Inventories

AIIC This material is listed on the Australian Inventory of Industrial Chemicals. **NZIoC** This material is listed on the New Zealand Inventory of Chemicals.

Contact supplier for inventory compliance status. **TSCA** DSL/NDSL Contact supplier for inventory compliance status. Contact supplier for inventory compliance status. **EINECS/ELINCS** Contact supplier for inventory compliance status. **ENCS** Contact supplier for inventory compliance status. **IECSC KECL** Contact supplier for inventory compliance status. **PICCS** Contact supplier for inventory compliance status.

Legend:

AIIC- Australian Inventory of Industrial Chemicals

NZIoC - New Zealand Inventory of Chemicals

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

Supplier Safety Data Sheet 03/2023

Reason(s) For Issue: 5 Yearly Revised Primary SDS

This Safety Data Sheet has been prepared by IXOM Operations Pty Ltd (Toxicology and **Prepared By**

SDS Services).

Revision date: 28-Aug-2024

Revision Note:

The symbol (*) in the margin of this SDS indicates that this line has been revised.

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorization:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

STOT: Specific Target Organ Toxicity ATE: Acute Toxicity Estimate LC50: 50% Lethal Concentration

LD50: 50% Lethal Dose

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value * Skin designation

C Carcinogen

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA) Environmental Protection Agency

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

Australian Industrial Chemicals Introduction Scheme (AICIS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

U.S. National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Disclaimer

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since IXOM Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their IXOM representative or IXOM Operations Pty Ltd at the contact details on page 1.

IXOM Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

End of Safety Data Sheet

Region	Template name	Revision Note:
Australia	UGHS	2.0

Poison Schedule Number Not applicable

Auth Group Chemicals

IXOM Operations Pty Ltd **Generic Supplier**

H:OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR. **PPE Code**

No **Marine Pollutant** Ν

Deletion Flag (Y=Deleted,

N=Active)

Haz Indicator Aus Υ

IXOM Label Data

DANGER Signal word

SAFETY DIRECTIONS Avoid contact with skin and eyes and avoid breathing dust/vapour or spray mist. Wear overalls,

impervious gloves and chemical goggles. Ensure adequate ventilation when using. If inhalation risk exists wear organic vapour respirator. Store in a cool, dry, well ventilated place. Keep away from sources of heat or ignition - No smoking. Store away from incompatible materials (refer to SDS). Keep

containers closed when not in use.

FOR SPILLS Slippery when spilt. Shut off ignition sources. Wear protective equipment. Absorb with sand or soil.

Collect and seal in properly labelled drums or other suitable containers. Use non-sparking tools.

CONTAINS AU 99-100% ISOPROPANOL 5 Yearly Revised Primary SDS Reason(s) For Issue:

ADDITIONAL INFORMATION IS LISTED IN THE SAFETY DATA SHEET. Additional Info Statement

Pictograms

Physical Hazards



Physical Hazards

Hazard statements

H225 - Highly flammable liquid and vapor H319 - Causes serious eye irritation H336 - May cause drowsiness or dizziness **Scanned SDS Data**

Isopropyl alcohol; 2-Propanol; Isopropan-2-ol. **Synonyms**

28-Aug-2024 Revision date: 67-63-0 CAS No. 1219 UN number or ID number 3 Transport hazard class(es) Packing group Ш

000030111201 - ISOPROPANOL

Revision date: 28-Aug-2024 Revision Number 7

Proper shipping name ISOPROPANOL (ISOPROPYL ALCOHOL)

Poison Schedule Number Not applicable

Hazchem code •2YE

Australia SDS version information - UGHS

UL release: GHS Revision 7 2023 Q4

Australia Label version information - AULB

UL release: 2023 Q4

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

Specific target organ toxicity (single exposure)	Cate	gory 3

Page 13/13