

ANDREW ISOPROPYL ALCOHOL

Chemwatch Material Safety Data Sheet
 For Domestic Use Only.
 Issue Date: 24-Dec-2007
 XC9477SD

CHEMWATCH 1219
 Version No:2.0
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

ANDREW ISOPROPYL ALCOHOL

STATEMENT OF HAZARDOUS NATURE

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.

OTHER NAMES

C3-H8-O, CH3-CH(OH)-CH3, (CH3)2-CHOH, IPA, "dimethyl carbinol", "sec-propyl alcohol", "iso propyl alcohol", "isohol petrohol", 1-methylethanol, 1-methylethanol, Avantine, Chromar, Lutosol, "Hewlett-Packard P/N: 92281B", P1238.7, "Ashland Isopropyl Alcohol", "Union Carbide Isopropanol Anhydrous Semiconductor Grade", "Tokuyama IPA SE/USE", "Merck Propan-2-ol AnalaR 10224", "Merck Propan-2-ol AnalaR 10224", "David Craig Isopropyl Alcohol"

PROPER SHIPPING NAME

ISOPROPANOL (ISOPROPYL ALCOHOL)

PRODUCT USE

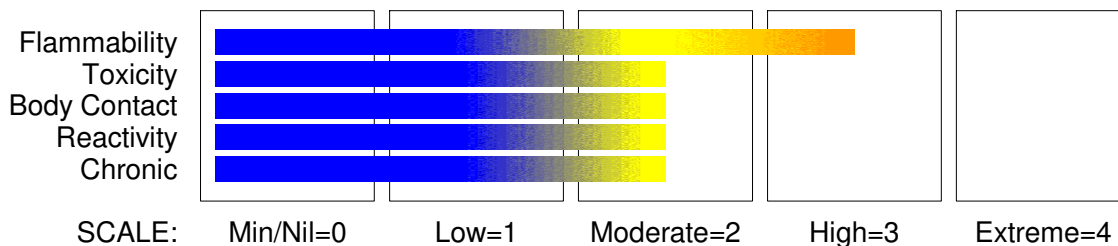
Solvent for chemicals, paints, varnishes, gums, resins, essential oils. Used in the preservation of physiological and pathological specimens.
 Used for extraction processes, perfumery, and pharmaceuticals. Used in the production of acetone, glycerol and isopropyl esters, acetate.

SUPPLIER

Company: Damar Industries Limited
 Address:
 Eastgate Business Park
 800 Te Ngae Road
 Rotorua
 Telephone: +64 7 345 6007
 Emergency Tel: 0800 2436 2255
 Emergency Tel: 0800 CHEMCALL
 Fax: +64 7 345 6019

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS



GHS Classification

Acute Toxicity (Oral) Category 5
 Eye Irritation Category 2A
 Flammable Liquid Category 2
 Skin Corrosion/Irritation Category 3

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Section 2 - HAZARDS IDENTIFICATION



EMERGENCY OVERVIEW

HAZARD

DANGER

Gazetted by ERMANZ:

3.1B 6.1E 6.3B 6.4A

Highly flammable liquid and vapour

May be harmful if swallowed

Causes mild skin irritation

Causes serious eye irritation

PRECAUTIONARY STATEMENTS

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Response

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

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue

rinsing.

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

If skin irritation occurs: Get medical advice/ attention.

If eye irritation persists: Get medical advice/attention.

Storage

Store in a well-ventilated place. Keep cool.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
isopropanol	67-63-0	>99

Section 4 - FIRST AID MEASURES

NEW ZEALAND POISONS INFORMATION CENTRE 0800 POISON (0800 764 766)

NZ EMERGENCY SERVICES: 111

SWALLOWED

• If swallowed do NOT induce vomiting.

• If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and

prevent aspiration.

• If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible

aspiration of vomitus.

EYE

» If this product comes in contact with the eyes:

• Wash out immediately with fresh running water.

• Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting

the upper and lower lids.

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Section 4 - FIRST AID MEASURES

SKIN

» If skin or hair contact occurs:

- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.

NOTES TO PHYSICIAN

» Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically.

For acute or short term repeated exposures to isopropanol:

- Rapid onset respiratory depression and hypotension indicates serious ingestions that require careful cardiac and respiratory monitoring together with immediate intravenous access.
- Rapid absorption precludes the usefulness of emesis or lavage 2 hours post-ingestion. Activated charcoal and cathartics are not clinically useful. Ipecac is most useful when given 30 mins. post-ingestion.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Alcohol stable foam.
- Dry chemical powder.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.

When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 1000 metres in all directions.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are highly flammable.
 - Severe fire hazard when exposed to heat, flame and/or oxidisers.
- Combustion products include: carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.
- WARNING: Long standing in contact with air and light may result in the formation of potentially explosive peroxides.

FIRE INCOMPATIBILITY

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Remove all ignition sources.
- Clean up all spills immediately.

MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Containers, even those that have been emptied, may contain explosive vapours.
- Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
- DO NOT allow clothing wet with material to stay in contact with skin.

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Section 7 - HANDLING AND STORAGE

The substance accumulates peroxides which may become hazardous only if it evaporates or is distilled or otherwise treated to

concentrate the peroxides. The substance may concentrate around the container opening for example.

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.

SUITABLE CONTAINER

- DO NOT use aluminium or galvanised containers.
- Packing as supplied by manufacturer.
- Plastic containers may only be used if approved for flammable liquid.
- For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii) : Where a can is to be used as an inner package, the can must have a screwed enclosure.
- For materials with a viscosity of at least 2680 cSt. (23 deg. C).

STORAGE INCOMPATIBILITY

- Avoid storage with strong acids, acid chlorides, acid anhydrides, oxidising agents.
- Secondary alcohols and some branched primary alcohols may produce potentially explosive peroxides after exposure to light and/ or heat.
- Incompatible with aluminium. DO NOT heat above 49 deg. C. in aluminium equipment.
- Avoid isocyanates.

STORAGE REQUIREMENTS

- Store in original containers in approved flame-proof area.
- No smoking, naked lights, heat or ignition sources.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³
New Zealand Workplace Exposure Standards (WES)	isopropanol (Isopropyl alcohol)	400	983	500	1, 230

PERSONAL PROTECTION



RESPIRATOR

Type A Filter of sufficient capacity

EYE

- Safety glasses with side shields.
- Chemical goggles.

HANDS/FEET

- » Suitability and durability of glove type is dependent on usage. Factors such as:
- frequency and duration of contact,
- chemical resistance of glove material,.
- Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber.

OTHER

- Overalls.
- PVC Apron.

ENGINEERING CONTROLS

- » For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required.
- Ventilation equipment should be explosion-resistant.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Clear, colourless highly flammable liquid with an odour of rubbing alcohol; mixes with water, alcohol and ether.

PHYSICAL PROPERTIES

Liquid.
Mixes with water.

Molecular Weight: 60.11
Melting Range (°C): - 88.5
Solubility in water (g/L): Miscible
pH (1% solution): Not applicable
Volatile Component (%vol): 100
Relative Vapour Density (air=1): 2.07
Lower Explosive Limit (%): 2.3
Autoignition Temp (°C): 456
State: Liquid

Boiling Range (°C): 82.0
Specific Gravity (water=1): 0.78 @ 25 C
pH (as supplied): Not applicable
Vapour Pressure (kPa): 4.4 @ 20 C
Evaporation Rate: 2.4 BuAc=1
Flash Point (°C): 11.7
Upper Explosive Limit (%): 12.7
Decomposition Temp (°C): Not Available
Viscosity: Not Available

Material	Value
log Kow	- 0.16- 0.28

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

- » Irritating to eyes.
- » HARMFUL- May cause lung damage if swallowed.
- » Vapours may cause dizziness or suffocation.
- » Vapours may cause drowsiness and dizziness.
- » Inhalation and/or ingestion may produce health damage*.
- » * (limited evidence).

CHRONIC HEALTH EFFECTS

- » Cumulative effects may result following exposure*.
- » * (limited evidence).

TOXICITY AND IRRITATION

» The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. The substance is classified by IARC as Group 3:
NOT classifiable as to its carcinogenicity to humans.
Evidence of carcinogenicity may be inadequate or limited in animal testing.

CARCINOGEN

isopropanol

International Agency for Research on Cancer
(IARC) Carcinogens

Group

3

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Section 12 - ECOLOGICAL INFORMATION

This material and its container must be disposed of as hazardous waste.

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle where possible
 Otherwise ensure that:
- licenced contractors dispose of the product and its container.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: FLAMMABLE LIQUID
HAZCHEM: None

UNDG:

Dangerous Goods Class:	3	Subrisk:	None
UN Number:	1219	Packing Group:	II
Shipping Name:	ISOPROPANOL (ISOPROPYL ALCOHOL)		

Air Transport IATA:

ICAO/IATA Class:	3	ICAO/IATA Subrisk:	None
UN/ID Number:	1219	Packing Group:	II
Special provisions:	None		
Shipping Name:	ISOPROPANOL		

Maritime Transport IMDG:

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	1219	Packing Group:	II
EMS Number:	F- E, S- D	Special provisions:	None
Limited Quantities:	1 L		
Shipping Name:	ISOPROPANOL (ISOPROPYL ALCOHOL)		

Section 15 - REGULATORY INFORMATION

REGULATIONS

isopropanol (CAS: 67-63-0) is found on the following regulatory lists;
GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships
IMO IBC Code Chapter 18: List of products to which the Code does not apply
IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
IMO Provisional Categorization of Liquid Substances - List 1: Pure or technically pure products
IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO
International Agency for Research on Cancer (IARC) Carcinogens
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods
New Zealand Hazardous Substances and New Organisms (HSNO) Act - Hazardous Substances Register
New Zealand Inventory of Chemicals (NZIoC)
New Zealand Workplace Exposure Standards (WES)
OECD Representative List of High Production Volume (HPV) Chemicals
Specific advice on controls required for materials used in New Zealand can be found at <http://www.ermanz.govt.nz/search/registers.html>

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Section 16 - OTHER INFORMATION

NEW ZEALAND POISONS INFORMATION CENTRE

0800 POISON (0800 764 766)

NZ EMERGENCY SERVICES: 111

» Classification of the preparation and its individual components has drawn on official and authoritative sources as well as

independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references.

» The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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