



## MATERIAL SAFETY DATA SHEET

### SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product name:</b>	<b>NORDALE ISOPROPANOL (IPA) SOLVENT</b>
<b>Other names:</b>	Isopropanol Solvent; IPA Solvent; Isopropyl Alcohol.
<b>Manufacturer's product code:</b>	IPA Solvent.
<b>Recommended use:</b>	Thinner/Cleaner.
<b>Manufacturer/Supplier:</b>	Nordale Australasia Pty Ltd. 70 Link Drive Campbellfield VIC 3061.
<b>Phone:</b>	(03) 9357 7100
<b>Fax:</b>	(03) 9357 0655
<b>Mobile:</b>	0408 612 556 and 0414 417 053
<b>Emergency telephone numbers:</b>	(03) 9357 7100 (Mon-Fri. 9am-5pm) <b>0414 417 053/ 0408 612 556</b> (All other hours)

### SECTION 2: HAZARDS IDENTIFICATION

Classified as hazardous according to NOHSC criteria.  
Classified as a dangerous good according to the Australian Dangerous Good Code- 6<sup>th</sup> edition.

#### **Risk phrases:**

R11 Highly flammable.  
R36 Irritating to eyes.  
R67 Vapours may cause drowsiness and dizziness.

#### **Safety phrases:**

S2 Keep out of reach of children.  
S23 Do not breathe gas/fumes/vapour/spray.  
S24/25 Avoid contact with skin and eyes.  
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S51 Use only in well ventilated areas.  
S38 In case of insufficient ventilation, wear suitable respiratory equipment.  
S16 Keep away from sources of ignition- No smoking.  
S33 Take precautionary measures against static discharges.

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<b>CHEMICAL NAME:</b>	<b>CAS NUMBER:</b>	<b>PROPORTION (w/w):</b>
Isopropyl Alcohol	67-63-0	> 90%

## **SECTION 4: FIRST AID MEASURES**

### **Description of necessary first aid measures:**

#### Ingestion:

Do NOT induce vomiting. Seek immediate medical attention. For advice, contact a Poison Information Centre (Australia 13 1126; New Zealand 0800 764 766) or a doctor at once.

#### Eye:

Immediately irrigate the contaminated eye with plenty of water, holding the eyelid open. If irritation develops and persists, seek medical attention.

#### Skin:

Remove any contaminated clothing and wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention. Ensure contaminated clothing is washed before re-use or discard.

#### Inhaled:

Remove the source of contamination or move the victim to fresh air immediately. If not breathing, apply artificial respiration at once and seek urgent medical advice. If irritation develops and persists, seek medical attention.

#### First aid facilities:

Eye wash fountain, safety shower and normal wash room facilities.

### **Medical attention and special treatment:**

Advice to doctor: Treat symptomatically. Extreme caution must be taken to prevent aspiration.

### **Aggravated medical conditions caused by exposure:**

Exposure may aggravate existing conditions including skin sensitisation and dermatitis.

## **SECTION 5: FIRE FIGHTING MEASURES**

### **Special protective precautions and equipment for fire fighters:**

Wear full protective clothing and self contained breathing apparatus.  
Keep storage tanks cool with water spray as they may explode from heat of fire.

*Fire / Explosion hazards:* Product is highly flammable. Isolate from sources of heat, naked flames, sparks and strong oxidising materials. Take precautions against static electricity discharges. Earth and bond all process equipment including tanks or drums. Ensure adequate ventilation to prevent an explosive vapour-air mixture. Vapours will travel considerable distances to sources of ignition and flash back. Remove sources of re-ignition.

### **Suitable extinguishing media:**

Use foam, dry chemical or carbon dioxide extinguishers. Do NOT use water jet.

### **Hazards from combustion products:**

Oxides of carbon.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **Emergency procedures:**

Evacuate area of all unnecessary people. Extinguish or remove all sources of ignition and shut off source of leak if safe to do so. Increase ventilation. Wear full protective equipment and clothing to minimise exposure.

### **Methods and materials for containment and clean up:**

Contain the spill with inert, non combustible, absorbent material. Do NOT use combustible materials such as sawdust. Using non-sparking tools and equipment; collect the material and place into a suitable labelled and sealed container.

Conform to all local, state or federal regulations and guidelines for waste disposal. Do not flush or allow spillage to enter into drains; sewers or watercourses- inform the local authority and the Environmental Protection Authority if this occurs.

## **SECTION 7: HANDLING AND STORAGE**

### **Precautions for safe handling:**

Use only in a well ventilated area. Open containers cautiously as contents may be under pressure. Build up of mists or vapours in the atmosphere must be prevented. Avoid inhalation of vapours. DO NOT store or use in confined spaces. Prevent concentration in hollows and sumps. Do not enter these areas until atmosphere has been checked. Do not use near ignition sources.

Repeated or prolonged exposure with no personal protection should be avoided in order to lessen the possibility of disorders.

It is essential that all who come into contact with this material maintain high standards of personal hygiene i.e. washing hands prior to eating, drinking, smoking or going to the toilet.

Misuse of empty containers can be hazardous. Do not pressurise, cut, weld, heat or drill empty containers as they may contain dangerous residues. Residue may ignite with explosive violence if heated sufficiently. Keep empty containers closed with bung in place.

### **Conditions for safe storage, including any incompatibilities:**

Store in a dry, cool, well ventilated area, away from ignition sources, heat, strong oxidising agents, foodstuffs and clothing. Keep containers closed when not in use and protected against physical damage. Inspect regularly for damage or leaks.

Take precautions against static electricity discharges. Use proper grounding procedures. Have appropriate fire extinguishers available in and near areas of storage and handling.

Reference should be made to all local, state and federal regulations as well as Australian Standards AS1940- The storage and handling of flammable and combustible liquids.

## **SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

Listed below are exposure standards for Isopropyl Alcohol (Isopropanol) according to the National Occupational Health and Safety Commission (NOHSC). As with all chemicals, exposure should be maintained to the least possible levels.

### **NOHSC exposure standards:**

Isopropyl Alcohol: \*TWA 400ppm (983mg/m<sup>3</sup>); \*STEL 500ppm (1230mg/m<sup>3</sup>)

\* As listed on the National Occupational Health & Safety Commission's: *National Exposure Standards Database*.

### **Biological limit values:**

No biological limit values are available for this product.

### **Engineering controls:**

The working environment must be adequately ventilated to maintain air concentrations to a minimum and below exposure limits especially where vapours or mists are generated; particularly in enclosed areas where natural ventilation is inadequate. A flame proof exhaust ventilation system or an approved respirator is recommended depending on assessment of local working environment.

Product vapour is heavier than air and will collect at low levels. Hence, ventilate by extraction at low levels.

For further information concerning ventilation, refer to:

AS 1940 – The storage and handling of flammable and combustible liquids &

AS 2430 – Explosive gas atmospheres.

**Personal protective equipment:**

Respiratory type:	Approved respirators may be necessary to prevent over exposure by inhalation. Available information suggests that the use of an approved respirator with organic vapour filter may be suitable however will vary according to individual circumstances i.e. actual airborne concentrations in the local working environment. Hence the user should make the final assessment. Expert advice may be required to make this decision. Refer to AS/NZS 1715 - Selection, use & maintenance of respiratory protective devices and AS/NZS 1716- Respiratory Protective Devices.
Glove type:	Impervious gloves recommended. Available information suggests that neoprene, natural or nitrile rubber gloves may be suitable, however due to variations in glove construction and individual circumstances, the user should make a final assessment. Expert advice may be required to make this decision. Refer to AS/NZS 2161 Occupational protective gloves- Selection, use and maintenance.
Eye protection:	To prevent eye contact, wear safety glasses, chemical goggles or face shield as appropriate. Refer to AS/NZS 1337-Eye protectors for industrial applications.
Clothing:	Wear impervious protective clothing to prevent skin contact. Discard or wash contaminated clothing before reuse.
Other:	Subsequent to handling product, do not eat or drink until after washing hands thoroughly.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Clear, colourless liquid.
Odour:	Alcohol odour.
pH:	Not applicable.
Vapour pressure:	Approx 33mmHg.
Relative vapour density:	1.05 (air =1)
Boiling point:	IBP: Approx 83°C
Solubility in water:	Miscible.
Specific gravity:	Approx. 0.79
Flashpoint:	Approx: 11°C (Closed cup)
Flammability limits:	LEL: 2.0%; UEL: 12%
Auto-ignition temperature:	>400°C.

**SECTION 10: STABILITY AND REACTIVITY****Chemical stability:**

Stable under normal conditions of storage and handling.

**Conditions to avoid:**

Sources of ignition i.e. flames.

Heat i.e. direct sunlight.

Contact with incompatible materials.

**Incompatible materials:**

Strong oxidisers, acetaldehyde, chlorine, ethylene oxide, acids, isocyanates.

**Hazardous decomposition products:**

Oxides of carbon.

**Hazardous reactions:**

Possible hazardous reaction with incompatible materials i.e. strong oxidisers.

**SECTION 11: TOXICOLOGICAL INFORMATION****Health effects from the likely routes of exposure:****Acute****Ingestion:**

Ingestion may result in gastrointestinal irritation, in particular nausea, abdominal pain, vomiting and diarrhoea. Ingestion may also lead to aspiration of material into the lungs and central nervous system (CNS) depression. CNS effects include dizziness, drowsiness, confusion, headache, muscular weakness and loss of consciousness. Prolonged exposure to a large quantity can ultimately lead to coma and possibly death.

**Eye:**

Eye contact and solvent vapour will cause moderate eye irritation. Symptoms may include redness, stinging, tearing, pain or swelling.

**Skin:**

Skin contact or solvent vapour may cause irritation including itching, redness or rash. Prolonged and repeated exposure may cause skin dryness or cracking possibly leading to dermatitis.

**Inhalation:**

Inhalation of solvent vapour may lead to irritation of the respiratory system. Symptoms of overexposure may include fatigue, headache, drowsiness, dizziness, shortness of breath and possible nausea. Very high concentrations of product vapour may cause central nervous system depression which can lead to loss of coordination, impaired judgement and if exposure is prolonged, unconsciousness and death.

**Chronic**

Prolonged and repeated exposure through inhalation, ingestion or skin contact may result in harmful effects including central nervous system depression. Systemic effects of chronic exposure can also include damage to kidneys, liver and other organs especially where exposure is repeated and prolonged with no personal protection. Excessive skin exposure may also result in irritation leading to dermatitis.

**SECTION 12: ECOLOGICAL INFORMATION****Ecotoxicity:**

No ecotoxicity data is available for this specific product.

**Persistence and degradability:**

No data is available for this specific product.

**Mobility:**

No data is available for this specific product.

**Environmental fate (exposure):**

No data is available for this specific product.

**Bioaccumulative potential:**

No data is available for this specific product.

**SECTION 13: DISPOSAL CONSIDERATIONS****Disposal methods and containers:**

Dispose of waste product and containers in accordance with all local, state or federal regulations and guidelines for waste disposal. Do not flush unused or waste product directly into the environment i.e. into drains.

## **SECTION 14: TRANSPORT INFORMATION**

This product is a Class 3- Flammable liquid in accordance with the Australian Dangerous Good Code- 6<sup>th</sup> edition.

**UN Number:** 1219  
**UN Proper Shipping Name:** ISOPROPANOL  
**Dangerous goods class:** 3  
**Subsidiary Risk:** None allocated  
**Packaging Group** II  
**Hazchem Code:** 2[Y]E

### **Special precautions:**

Do not allow containers to be exposed to sources of ignition and heat whilst transporting i.e. direct sunlight.

Class 3 - Flammable Liquids are incompatible in a placard load with any placard load with any of the following:

- Class 1 Explosives;
- Class 2.1 Flammable gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk;
- Class 2.3 Toxic gases;
- Class 4.2 Spontaneously combustible substances;
- Class 5.1 Oxidising substances;
- Class 5.2 Organic peroxides;
- Class 6 Toxic and infectious substances (if the Class 3 dangerous good is nitromethane);
- Class 7 Radioactive material.

## **SECTION 15: REGULATORY INFORMATION**

### **Regulatory status:**

Listed on the Australian Inventory of Chemical Substances (AICS).

**SUSDP Poisons schedule number:** Not Scheduled.

## **SECTION 16: OTHER INFORMATION**

### **Abbreviations used in MSDS:**

Approx: Approximately.  
AS/NZS: Australian Standard / New Zealand Standard.  
FP: Flash point.  
> : Greater than.

### **Date of preparation or last revision of the MSDS:**

MSDS Review: 28<sup>th</sup> Feb 2014

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