

**WILLIAM**



**RANSOM**

William Ransom & Son plc  
Bancroft, Hitchin, Hertfordshire SG5 1LY England  
Telephone: 01462 437615 Fax: 01462 420628

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## **Technical Data Sheet**

### **ISOPROPYL ALCOHOL BP**

<b>CHARACTERISTICS</b>	<b>A clear, colourless liquid.</b>
<b>IDENTIFICATION</b>	<b>COMPLIES</b>
<b>SOLUBILITY</b>	<b>COMPLIES</b>
<b>WEIGHT PER ML AT 20°C</b>	<b>0.783 - 0.787 g/ml</b>
<b>REFRACTIVE INDEX AT 20°C</b>	<b>1.376 - 1.379</b>
<b>ACIDITY OR ALKALINITY</b>	<b>COMPLIES</b>
<b>APPEARANCE</b>	<b>COMPLIES</b>
<b>GAS CHROMATOGRAPHY</b>	<b>COMPLIES</b>
<b>NON-VOLATILE MATTER</b>	<b>NMT 20ppm</b>
<b>PEROXIDES</b>	<b>COMPLIES</b>
<b>WATER</b>	<b>NMT 0.50%w/w</b>
<b>BENZENE AND RELATED SUBSTANCES</b>	<b>NMT 2ppm</b>

**STORAGE**                      Store in well filled, well-closed containers, protected from light and at a temperature not exceeding 25°C.

**SHELF-LIFE**                      Three years (unopened container)

Approved by SR  
AL/00/000/TDS-2-7/5/98



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## PRODUCT SAFETY DATA SHEET

### 1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND MANUFACTURER

1.1 PRODUCT NAME	ISOPROPYL ALCOHOL BP
1.2 PRODUCT CODE	AL/00
1.3 MANUFACTURER	William Ransom and Son plc.
1.4 ADDRESS	104 Bancroft, HITCHIN, Hertfordshire, SG5 1LY, United Kingdom.
1.5 TELEPHONE/FAX NUMBER	01462 437615 / 01462 420528

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

2.1 COMPOSITION	A solution of Isopropyl Alcohol (CAS No. 67-63-0). ISOPROPANOL.
2.2 HAZARDOUS COMPONENTS	Isopropyl Alcohol (CAS No. 67-63-0) (F)
2.3 CAS NUMBER	CAS No. 67-63-0.

### 3. HAZARD IDENTIFICATION

#### 3.1 PRIMARY HAZARDS

HIGHLY FLAMMABLE.

#### 3.2 HEALTH EFFECTS

EYES

Will cause conjunctival irritation, corneal damage and iritis (inflammation of the iris).

INGESTION

A fatal dose in man can be as low as 100ml. Principle effect is rapid central nervous system depression and coma, which may be prolonged. Will also cause nausea, vomiting, muscular incoordination, gastritis (inflammation of the lining of the stomach), haemorrhage (escape of blood from a ruptured blood vessel), loss of consciousness and respiratory failure. Aspiration (sucking liquid into lungs) during swallowing or vomiting will damage lungs.

INHALATION

Vapour concentrations in excess of the occupational exposure limit may cause irritation of the eyes, nose and throat. High concentrations will produce central nervous system depression and symptoms and effects similar to those for ingestion.

SKIN

Repeated or prolonged contact may symptoms similar to those for ingestion. It may also cause defatting and possible dermatitis.

### 4. FIRST AID MEASURES

#### 4.1 EYES

Remove contact lenses if possible. Irrigate eye(s) with plenty of fresh water for at least five minutes, holding eye open. Obtain medical attention IMMEDIATELY.

#### 4.2 INGESTION

Wash mouth out thoroughly with water. DO NOT INDUCE VOMITING. Keep warm and at rest. If there is difficulty with breathing, give oxygen. If breathing stops or shows signs of failing, apply mouth to mouth ventilation. Seek medical assistance IMMEDIATELY

#### 4.3 INHALATION

Remove to fresh air, keep warm and at rest. If there are any difficulties with breathing give oxygen; if breathing stops or gives signs of failing apply artificial respiration. Seek medical assistance immediately.

#### 4.4 SKIN

Remove contaminated clothing, this should not be worn again until it has been laundered. Wash contaminated skin with soap and water. Seek medical assistance if discomfort persists.

#### 4.5 ADVICE TO PHYSICIANS

Isopropanol is twice as toxic as ethanol.

### 5. FIRE FIGHTING MEASURES

#### 5.1 EXTINGUISHING MEDIA

Water spray, AFFF foam, chemical dry powder or carbon dioxide.

#### 5.2 UNSUITABLE

EXTINGUISHING MEDIA

Do not use water jet.

**5. FIRE FIGHTING MEASURES (continued)**

- 5.3 SPECIAL HAZARDS Burning produces acrid smoke, irritating fumes, carbon monoxide and carbon dioxide.
- 5.4 PROTECTIVE EQUIPMENT Self contained breathing apparatus.

**6. ACCIDENTAL RELEASE MEASURES**

- 6.1 PERSONAL PRECAUTIONS Extinguish sources of ignition, ventilate area.
- 6.2 ENVIRONMENTAL PRECAUTIONS Do not allow product to enter drains and watercourses.
- 6.3 SPILLAGE Extinguish sources of ignition. Absorb spillage using a proprietary absorbent or sand, scoop up and place in a suitable open-topped container leave in a safe place in open air for alcohol to evaporate. Dispose of through licensed waste disposal contractor. Wash contaminated area thoroughly with water and detergent. Ventilate area thoroughly.

**7. HANDLING AND STORAGE**

- 7.1 HANDLING Use in a well-ventilated area. Avoid inhaling vapour. Avoid contact with eyes, skin and clothing. Keep container tightly closed when not in use.
- 7.2 STORAGE Store in well closed containers, away from heat and source of ignition, at a temperature not exceeding 25°C. Attention is drawn to the Highly Flammable Liquids and Liquefied Petroleum Gases Regulations 1972 for the storage of containers of over 500ml in size.

**8. EXPOSURE CONTROL/PERSONAL PROTECTION**

- 8.1 OCCUPATIONAL EXPOSURE STANDARDS 400ppm or 980mg/m<sup>3</sup> 8 hour TWA skin notation (Isopropanol)  
500ppm or 1225mg/m<sup>3</sup> 10 minute STEL & skin notation (Isopropanol)
- 8.2 ENGINEERING CONTROL MEASURES Local exhaust ventilation.
- 8.3 EYE PROTECTION Goggles or face-shield
- 8.4 GENERAL PROTECTION Overalls.
- 8.5 RESPIRATORY PROTECTION Dust/Fume respirator.
- 8.6 SKIN/HAND/PROTECTION PVC or rubber gloves.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

- 9.1 PHYSICAL STATE Liquid
- 9.2 COLOUR Colourless.
- 9.3 ODOUR Characteristic of Isopropanol.
- 9.4 pH No test data.
- 9.5 BOILING POINT °C 82
- 9.6 FLASH POINT °C 10°C (closed cup)
- 9.7 EXPLOSION LIMITS Lower Limit 2.0%v/v Upper Limit 12.0%v/v for Isopropanol.
- 9.8 SOLUBILITY IN WATER Miscible.
- 9.9 SOLUBILITY IN Alcohol, chloroform and ether.
- 9.10 VAPOUR PRESSURE (hPa) No test data.
- 9.11 WEIGHT (g/ml) 0.83g/ml at 20°C.
- 9.12 FLAMMABILITY Flammable.
- 9.13 AUTO-IGNITION (°C) 399.
- 9.14 EXPLOSIVE PROPERTIES Moderate/severe in an enclosed space in the presence of a source of ignition.
- 9.15 OXIDISING PROPERTIES None reported.
- 9.16 VISCOSITY (cSt) 3.057 at 20°C
- 9.17 VAPOUR DENSITY (AIR=1) 2.08
- 9.18 DECOMPOSITION TEMPERATURE (°C) No test data.
- 9.19 DUST EXPLOSION DATA Not applicable.

**10 STABILITY AND REACTIVITY****10.1 STABILITY**

Stable under normal conditions. No unusual reactivity. Hygroscopic.

**10.2 CONDITIONS TO AVOID**

Exposure to sources of ignition, water, moisture and temperatures above 25°C.

**10.3 MATERIALS TO AVOID**

Incompatible with oxidising agents

**10.4 HAZARDOUS**

Decomposition will produce acrid smoke, irritating fumes, carbon monoxide and/or carbon dioxide.

**DECOMPOSITION PRODUCTS****11 TOXICOLOGICAL INFORMATION****11.1 ACUTE TOXICITY**

Oral rat LD50 4700 – 5500mg/kg (Isopropanol)

**11.2 EYE IRRITANT**

Yes

**11.3 SKIN IRRITANT**

Possibly.

**11.4 SKIN SENSITISATION**

No.

**11.5 SUB-ACUTE/SUBCHRONIC TOXICITY**

Treatment related changes have been observed in laboratory animals after repeated inhalation exposure.

**11.6 CHRONIC TOXICITY/ CARCINOGENITY**

None reported.

**11.7 GENOTOXICITY**

None reported.

**11.8 REPRODUCTIVE/****DEVELOPMENTAL TOXICITY**

None reported..

**11.9 HUMAN DATA**

No data available.

**11.10 ADDITIONAL DATA**

Nil

**12 ECOLOGICAL INFORMATION****12.1 MOBILITY**

Mobile liquid.

**12.2 PERSISTANCE/****DEGRADABILITY**

Bio-degradable.

**12.3 BIO-ACCUMULATION**

Not expected to bioaccumulate.

**12.4 ECOTOXICITY**

No data available.

**13 DISPOSAL****13.1 PRODUCT DISPOSAL**

Through licensed waste disposal contractor.

**13.2 CONTAINER DISPOSAL**

Wash out container, remove labels and send for recycling.

**14 TRANSPORT INFORMATION**

	NUMBER	PROPER SHIPPING NAME	CLASS	SUBSIDIARY RISK	PACK GROUP	
14.1 ADR INFO	1219 isopropanol		3		(b)	Item Number 2301-3° Hazard Ident No. 33
14.2 IMDG INFO	1219	ISOPROPANOL	3.2		II	Page 3244 EmS 3-06 MPAG 305
14.3 IATA INFO	1219	isopropanol	3		II	Packaging instructions 305 & Y305 passenger aircraft Packaging instructions 307 cargo aircraft.
14.4 CDG ROAD	1219	ISOPROPANOL	3		II	Emergency Code 2YE Tremcard Number 30G30

**15 REGULATORY INFORMATION****15.1 EC CLASSIFICATION****HEALTH**

Not classified

**PHYSICO****CHEMICAL PROPERTIES****HIGHLY FLAMMABLE****ENVIRONMENTAL**

Not classified

**15.2 RISK PHRASES**

R11

Highly flammable

**15.3 SAFETY PHRASES**

S9

Keep container in a well ventilated place.

S16

Keep away from sources of ignition – No smoking.

**16 NATIONAL LEGISLATION**

- 16.1 CHEMICALS (HAZARD INFORMATION AND PACKAGING FOR SUPPLY) (Amendment) REGULATIONS 1998  
16.2 THE CARRIAGE OF DANGEROUS GOODS BY ROAD AND RAIL (CLASSIFICATION AND LABELLING) REGULATIONS 1994.  
16.3 HIGHLY FLAMMABLE LIQUIDS AND LIQUEFIED PETROLEUM GASES REGULATIONS 1972.

**17 OTHER INFORMATION****17.1 REFERENCES USED**

1. Martindale 30<sup>th</sup> edition page 798 (Isopropyl Alcohol).
2. Sax's Dangerous Properties of Industrial Materials, eighth edition, page 2040 INJ000 (Isopropyl Alcohol).
3. Micromedex Poisindex(R) Substance Identification (Isopropyl Alcohol).
4. Hayman Limited Safety Data Sheet XIPAX 4.00 GB Current 13.06.1994 (Isopropanol).

**17.2 PRODUCT SAFETY DATA SHEET FIRST ISSUED**

07 September 1988.

**17.3 PRODUCT SAFETY DATA SHEET REVISED**

19 August 1999.

**17.4 REASON FOR REVISION**

Changes to transport codes and Risk and Safety phrases.

**17.5 ISSUE STANDARD**

3.

**17.6 APPROVED BY**

  
Technical Services Director

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