



CERTIFICATE OF ANALYSIS

Product: Isopropyl Alcohol 99%
Best Before Date: March 2023
Batch No.: 4390008

PROPERTY	SPECIFICATION	TEST RESULT
Appearance , -	Clear, colourless liquid	Pass
Water Content (%)	<0.10	0.10 max
Colour (Hazen)	5	5 max
Purity (%)	99.7	99.7min
Refractive Index @ 20°C	1.376	1.376-1.378
Density @ 20°C (g/ml)	0.784	0.784-0.787

*LT = Less Than

The goods detailed above and the tests specified have been provided by the manufacturer of the product.

No warranty of merchantability, fitness for any use, or any other warranty is expressed or to be implied, regarding the accuracy of this data. The results to be obtained from the use thereof, or the hazards connected with the use of this product.

Madar Corporation Limited assumes no liability for any alleged ineffectiveness of the product or any injury or damage, direct or consequential, resulting from the use of this product unless such injury or damage is solely attributable to negligence on the part of Madar Corporation Limited.

The user of the product is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties.



SAFETY DATA SHEET

DATE : 12/04/19
ISOPROPYL ALCOHOL

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY NAME

1.1 PRODUCT IDENTIFIER:

PRODUCT NAME: ISOPROPYL ALCOHOL/ ISOPROPANOL 70-100%
CAS NO.: 67-63-0
EC-No.: 200-661-7

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:

Use of the substance/mixture:

At this time we do not have information on identified uses. They will be included in the SDS when available.

Uses advised against:

At this moment we have not identified any uses advised against.

Remarks:

This substance is exempt from registration according to Regulation (EC) No. 1907/2006 (REACH).

1.3 DETAILS OF THE SUPPLIER:

MADAR Corporation Limited
19-20 Sandleheath Industrial Estate
Fordingbridge
Hampshire
SP6 1PA
Tel. +44 (0)1425 655555
e-mail: sales@madarcorporation.co.uk

2. HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008

Hazard class	Hazard category	Target Organs	Hazard statements
Flammable liquids	Category 2	---	H225
Serious eye damage/eye irritation	Category 2	---	H319
Specific target organ toxicity	Category 3	---	H336

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Directive 67/548/EEC or 1999/45/EC

Hazard symbol / Category of danger	Risk phrases
Highly flammable	R11
Irritant (Xi)	R36
R67	

For the full text of the R-phrases mentioned in this Section, see Section 16.

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Adverse physiochemical, human health and environmental effects

No additional information available.

2.2. LABEL ELEMENTS:

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms (CLP):



Signal word (CLP):

Danger

Hazard statements :

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion proof electrical/ventilating/lighting equipment.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well ventilated area.

P280 Wear protective gloves/ protective clothing/eye protection/ face protection.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing.

Rinse skin with water/ shower.

P304 + P340 IF INHALED: Remove victim to fresh air and KEEP at rest in a comfortable position for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P312 Call a poison centre or Doctor if you feel unwell.

P337 + P313 If eye irritation persists get medical advice or attention.

P370 + P378 In case of fire use.....to extinguish.

P403 + P233 + P235 Store in a well-ventilated place. Keep cool. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container to.....

2.3. OTHER HAZARDS:

For Results of PBT and vPvB assessment see section 12.5.



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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. SUBSTANCES:

Not applicable.

3.2. MIXTURES:

NAME	PRODUCT IDENTIFIER	%	CLASSIFICATION ACCORDING TO DIRECTIVE 67/548/EEC	CLASSIFICATION ACCORDING TO REGULATION (EC) 1272/2008
Isopropanol	CAS No. 67-63-0 EC No. 200-661-7 EC Index No. 603-117-00-0 Reach No. 01-2119457558-25	60 - 100	F: R11 Xi: R36 R67	Flam. Liquid 2. H225 Eye irritant 2. H319 STOT SE 3, H336

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES:

General advice

Never give anything by mouth to an unconscious person.

If inhaled

Remove victim to fresh air and KEEP at rest in a comfortable position for breathing. Get medical attention immediately. If breathing is laboured, administer oxygen. If breathing has stopped administer artificial respiration. If unconscious place in recovery position. Call a physician immediately.

In case of skin contact : Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 5 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible.

If swallowed

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately. If a person vomits when lying on his back, place him in the recovery position.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Symptoms : No information available.

Effects : No information available.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

No additional information available.

5. FIRE FIGHTING MEASURES

5.1. EXTINGUISHING MEDIA:

Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

High volume water jet.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

No additional information available.



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5.3. ADVICE FOR FIREFIGHTERS:

In the event of fire, wear self-contained breathing equipment for firefighters apparatus. Wear appropriate body protection (full protective suit).

6. ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

General measures:

Use personal protective equipment. Keep away unprotected persons. Provide adequate ventilation. Keep away from heat and sources of ignition. Avoid contact with skin and eyes. Do not breathe vapours or spray mist.

6.2. ENVIRONMENTAL PRECAUTIONS:

Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

Contain spillage, and then collect with non-combustible containment and cleaning absorbent material, (e.g. sand, earth, diatomaceous earth, up vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4. REFERENCE TO OTHER SECTIONS:

No additional information available.

7. HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING:

Precautions for safe handling:

Keep container tightly closed. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

Hygiene measures:

Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Requirements for storage:

Keep in an area equipped with solvent resistant flooring. Store in a cool, dry, well ventilated area. Keep container tightly closed. Store in original container.

Incompatible products:

Combustible liquid. Keep away from sources of ignition. Do not store together with oxidizing and self-igniting products.

7.3. SPECIFIC END USES:

No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS (Isopropanol 67-63-0):

EU	IOELV TWA (mg/m ³)	999 (8 hours)
EU	IOELV TWA (ppm)	400 (8 hours)
EU	IOELV STEL (mg/m ³)	1250 (15 mins)
EU	IOELV (ppm)	500 (15 mins)

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	DNEL/DMEL (Workers)	DNEL/DMEL (General population)	PNEC (Water)	PNEC (Sediment)	PNEC (Soil)
Acute – systemic effects, dermal	888mg/kg body weight per day	319mg/kg body weight			
Acute – systemic effects, inhalation	500mg/m ³	500mg/m ³			
Acute – systemic effects, oral		26mg/kg body weight			
PNEC aqua (freshwater)			140.9mg/l		
PNEC aqua (marine water)			140.9mg/l		
PNEC sediment (freshwater)				552mg/kg dwt	
PNEC soil					28mg/kg dwt

8.2. EXPOSURE CONTROLS:

Appropriate engineering controls:

Provide adequate general and local exhaust ventilation.

Personal protective equipment:

Safety glasses and gloves.

Hand protection:

Wear chemical resistant protective gloves. Standard EN374 – Protective gloves against chemicals.

Eye Protection:

Chemical goggles or safety glasses. Have an eye bath to hand.

Skin and body protection:

Wear suitable protective clothing. Safety shower at proximity.

Respiratory protection:

Wear respiratory protection.

Environmental exposure controls

Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Colour:	Colourless.
Odour:	Odour of alcohol.
Odour threshold:	No data available
pH:	No data available
Relative evaporation rate (butylacetate=1):	No data available
Melting point:	-88 °C
Freezing point:	No data available
Boiling point:	82 °C
Flash point:	12 °C
Self ignition temperature:	≥ 399 °C

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Decomposition temperature:	No data available
Flammability (solid, gas):	No data available
Vapour pressure:	4.16 kPa (at 20°C)
Relative vapour density at 20 °C:	2.8
Relative density:	0.7855 (at 20°C)
Solubility:	Miscible.
Log Pow:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	No data available
Oxidising properties:	No data available
Explosive limits:	No data available
Refractive index:	1.376 – 1.378
Flammability limit:	min. 2%, max. 12%.

10. STABILITY AND REACTIVITY

10.1. REACTIVITY:

No additional information available.

10.2. CHEMICAL STABILITY:

Stable under normal conditions.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS:

No additional information available.

10.4. CONDITIONS TO AVOID:

Keep away from heat, flames and sparks. No smoking.

10.5. INCOMPATIBLE MATERIALS:

Strong acids and oxidizing agents.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS:

Under fire conditions: Carbon oxides products.

11. TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS:

Acute toxicity:

Not classified.

Isopropanol (67-63-0)

LD50 oral rat (mg/kg)	4700
LD50 oral rabbit (mg/kg)	>=2000
LC50 inhalation rat (mg/l)	46.5 (4 hours)

12. ECOLOGICAL INFORMATION

12.1. TOXICITY

Isopropanol (67-63-0)

LC50 fishes 1 (mg/l)	>=100 (48 hours)
EC50 daphnia 1 (mg/l)	>=100 (48 hours)
LC50 other aquatic organisms 2 (mg/l)	>=100 (algae 72 hours)

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12.2. PERSISTENCE AND DEGRADABILITY:

Isopropanol (67-63-0)

Biodegradable.

12.3. BIOACCUMULATIVE POTENTIAL:

Isopropanol (67-63-0)

This product does not contain any substances expected to be bioaccumulating.

12.4. MOBILITY IN SOIL:

No additional information available.

12.5. RESULTS OF PBT/vPvB ASSESSMENT:

No additional information available.

12.6. OTHER ADVERSE EFFECTS:

No additional information available.

13. DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS:

Disposal together with normal waste is not allowed. Special disposal required according to local regulations.

Do not let product enter drains. Contact waste disposal services.

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Packagings that cannot be cleaned are to be disposed of in the same manner as the product. Do not burn, or use a cutting torch on, the empty drum. Risk of explosion.

14. TRANSPORT INFORMATION

In accordance with ADR/RID/IMDG/IATA

14.1 UN NUMBER:

UN number (ADR):	1219
UN number (IMDG):	1219
UN number (IATA):	1219
UN number (ADN):	Not applicable
UN number (RID):	1219

14.2. UN PROPER SHIPPING NAME:

Proper Shipping name (ADR): Not applicable.
Proper Shipping name (IMDG) Not applicable.
Proper Shipping name (IATA): Not applicable.
Proper Shipping name (ADN): Not applicable.
Transport document description (ADR): UN 1219, 3, II, (D/E).
Transport document description (IMDG): UN 1219, 3, II.

14.3. TRANSPORT HAZARD CLASS(ES)

ADR

Transport hazard class(es) (ADR): 3
Danger labels (ADR): 3



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IMDG

Transport hazard class(es) (IMDG): 3

IATA

Transport hazard class(es) (IATA): 3

ADN

Transport hazard class(es) (ADN): Not applicable.

ADR

Transport hazard class(es) (RID): 3

Danger labels (RID): 3



14.4. PACKING GROUP:

Packing group (ADR): II

Packing group (IMDG): II

Packing group (IATA): Not applicable.

Packing group (ADN): Not applicable.

Packing group (RID): Not applicable.

14.5. ENVIRONMENTAL HAZARDS:

Dangerous for the environment: No.

Marine pollutant: No.

Other information: No supplementary information available.

14.6. SPECIAL PRECAUTIONS FOR USER:

Overland transport:

Classification code (ADR): F1

Special provision (ADR): 601

Limited quantities (ADR): 1L

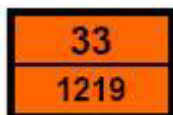
Excepted quantities (ADR): E2

Vehicle for tank carriage: FL

Transport Category (ADR): 2

Hazard identification No. (Kemler No.): 33

Orange Plates:



Tunnel restriction code (ADR): D/E

EAC code: 2YE

Inland waterway transport:

Not subjected to ADN.

Rail transport:

Carriage prohibited (RID): No.



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14.7. TRANSPORT IN BULK ACCORDING TO ANNEXE II OF MARPOL 73/78 AND THE IBC CODE:
Not applicable.

15. REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

EU Regulations:

Contains no substances with Annex XVII restrictions.
Isopropanol is not on the REACH candidate list.
Contains no REACH Candidate substance.
Contains no REACH Annex XIV substances.

National Regulations:

No additional information available.

15.2. CHEMICAL SAFETY ASSESSMENT

No additional information available.

Eye limit 2.	Serious eye damage/eye irritation. Category 2.
Flam. Liq. 2.	Flammable liquids. Category 2.
STOT S3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness.
R11	Highly flammable.
R36	Irritating to eyes.
R67	Vapours may cause drowsiness and dizziness.
F	Highly flammable.
Xi	Irritant.

16. OTHER INFORMATION

This safety data sheet is prepared in accordance with Commission Regulation (EU) No. 1907/2006 (REACH), 1272/2008 (CLP) as amended, EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU.

Legal disclaimer:

The information provided in this safety data sheet is correct to the best of our knowledge at the time of publication. It is given in good faith but no warranty is implied with respect to the quality and specification of the product. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

The customer must satisfy themselves that the product is entirely suitable for their own purposes.

Although certain hazards may be described we cannot predict that these are the only hazards, or combination of hazards, that may exist in a workplace. This MSDS, therefore, forms a component only of a risk assessment carried out by, or on behalf of, the user.



ISOPROPYL ALCOHOL (IPA)

Technical Data

PROPERTY	VALUE	TEST METHOD
Acidity as Acetic Acid (%)	0.001 w/w max.	ASTM D1613
Appearance	Clear and free from suspended matter	ASTM D4176
Colour	5 Alpha max.	ASTM D1209
Density @ 20°C (gm/ml)	0.785 to 0.786	ASTM D4052
Distillation DP (°C)	82.80	ASTM D1078
Distillation IBP (°C)	81.80	ASTM D1078
Non-Volatile Residue (gms/100ml)	0.001	ASTM D1353
Purity (%)	99.8	DIN 55685
Refractive Index @ 20°C	1.376 to 1.378	ASTM D1218
Water Miscibility	Miscible	ASTM D1722
Water Content (%)	0.10 max.	ASTM D1364
UV Absorbance @ 230nm	0.30 max.	Eur.Pharm. 2.2.28
UV Absorbance @ 250nm	0.10 max.	Eur.Pharm. 2.2.28
UV Absorbance @ 270nm	0.03 max.	Eur.Pharm. 2.2.28
UV Absorbance @ 290nm	0.02 max.	Eur.Pharm. 2.2.28
UV Absorbance @ 310nm	0.01 max.	Eur.Pharm. 2.2.28

Product is manufactured to meet ASTM D770, DIN 53245 specifications and ACS 8th edition.

The content of this data sheet is given in good faith and without warranty.

MADAR Corporation Ltd makes the limited warranty that at the date of delivery this product will be free from defects in materials and workmanship.

No warranty of merchantability, fitness for any use, or any other warranty is expressed or to be implied, regarding the accuracy of this data. The results to be obtained from the use thereof, or the hazards connected with the use of this product.

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