

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier:

Product name: ISOPROPANOL
Synonyms; trade names: PROPAN-2-OL, ISOPROPYL ALCOHOL
REACH registration number: 01-2119457558-25-XXXX
CAS number: 67-63-0
EU index number: 603-117-00-0
EC number: 200-661-7

Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Cleaning agent. Solvent Disinfectant.

Company name: Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification:

Physical hazards: Flam. Liq. 2 - H225
Health hazards: Eye Irrit. 2 - H319 STOT SE 3 - H336
Environmental hazards: Not Classified

Label elements:

EC number: 200-661-7

Pictogram:



Signal word: Danger

SAFETY DATA SHEET

Isopropanol

Issued: 27/06/2017

Page 2

Hazard statements:	H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.
Precautionary statements:	P243 Take precautionary measures against static discharge. P261 Avoid breathing vapour/ spray. P271 Use only outdoors or in a well-ventilated area. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable 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.
Supplementary precautionary statements:	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P240 Ground/ bond container and receiving equipment. P241 Use explosion-proof electrical equipment. P242 Use only non-sparking tools. P264 Wash contaminated skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P312 Call a POISON CENTER/ doctor if you feel unwell. P337+P313 If eye irritation persists: Get medical advice/ attention. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.
Other hazards:	This substance is not classified as PBT or vPvB according to current EU criteria.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances:

Product name:	ISOPROPANOL
REACH registration number:	01-2119457558-25-XXXX
EU index number:	603-117-00-0
CAS number:	67-63-0
EC number:	200-661-7
Composition comments:	≥99.9%

[cont...]

SAFETY DATA SHEET

Isopropanol

Issued: 27/06/2017

Page 3

4. FIRST AID MEASURES

Description of first aid measures:

General information:	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Keep affected person away from heat, sparks and flames.
Inhalation:	Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. If breathing stops, provide artificial respiration. Get medical attention.
Ingestion:	Rinse mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
Skin contact:	Remove affected person from source of contamination. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Get medical attention if irritation persists after washing.
Eye contact:	Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed:

Inhalation:	Vapours may cause drowsiness and dizziness.
Ingestion:	May cause discomfort if swallowed.
Skin contact:	May cause skin irritation.
Eye contact:	Causes serious eye irritation.

Indication of any immediate medical attention and special treatment needed:

Notes for the doctor:	Treat symptomatically.
------------------------------	------------------------

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media:	Alcohol-resistant foam. Water spray. Dry chemicals, sand, dolomite etc. In enclosed spaces: Carbon dioxide (CO ₂).
--------------------------------------	--

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture:

Specific hazards:	Avoid heat, flames and other sources of ignition. Heating may generate flammable vapours. Highly flammable liquid and vapour. Vapours may form explosive mixtures with air. Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.
--------------------------	--

Advice for firefighters:

Protective actions during firefighting: Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

[cont...]

SAFETY DATA SHEET

Isopropanol

Issued: 27/06/2017

Page 4

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

- Personal precautions:** Warn everybody of potential hazards and evacuate if necessary. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Use suitable respiratory protection if ventilation is inadequate. Wear protective clothing as described in Section 8 of this safety data sheet.
- Environmental precautions:** Collect and dispose of spillage as indicated in Section 13. Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
- Methods and material for containment and cleaning up:**
- Methods for cleaning up:** Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely. Provide adequate ventilation.
- Reference to other sections:** Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. Collect and dispose of spillage as indicated in Section 13.

7. HANDLING AND STORAGE

Precautions for safe handling:

- Usage precautions:** Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. If ventilation is inadequate, suitable respiratory protection must be worn. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Avoid inhalation of vapours/spray and contact with skin and eyes. Vapours may form explosive mixtures with air. Highly flammable liquid and vapour.
- Advice on general occupational hygiene:** Eye wash facilities and emergency shower must be available when handling this product. Take off contaminated clothing and wash it before reuse. Wash after use and before eating, smoking and using the toilet. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.
- Conditions for safe storage, including any incompatibilities:**
- Storage precautions:** Store in tightly-closed, original container in a dry, cool and well-ventilated place. Do not store near heat sources or expose to high temperatures. Protect from freezing and direct sunlight. Store at temperatures between 5°C and 25°C. Avoid contact with oxidising agents. Strong acids. Strong alkalis. Amines.
- Specific end use(s):** The identified uses for this product are detailed in Section 1.2.

[cont...]

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Occupational exposure limits:

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m³

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m³

WEL = Workplace Exposure Limit

Ingredient comments:

No exposure limits known for ingredient(s).

DNEL:

Workers - Dermal; Long term systemic effects: 888 mg/kg

Workers - Inhalation; Long term systemic effects: 500 mg/m³

Consumer - Dermal; Long term systemic effects: 319 mg/kg

Consumer - Inhalation; Long term systemic effects: 89 mg/m³

Consumer - Oral; Long term systemic effects: 26 mg/kg

PNEC:

Fresh water; 140.9 mg/l

Marine water; 140.9 mg/l

Sediment (Freshwater); 552 mg/kg

Sediment (Marine water); 552 mg/kg

Soil; 28 mg/kg

Exposure controls:



Protective equipment:

Appropriate engineering controls: No specific ventilation requirements. This product must not be handled in a confined space without adequate ventilation.

Eye/face protection: Tight-fitting safety glasses.

Hand protection: The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Gloves suitable for permanent contact:

Material - Nitrile rubber/nitrile latex

Breakthrough time: ≥ 480 minutes

Material thickness: 0.35 mm

Material - Butyl rubber

Breakthrough time: ≥ 480 minutes

Material thickness: 0.5 mm Gloves suitable for splash contact:

Material - Polychloroprene

Breakthrough time: ≥ 240 minutes

Material thickness: 0.5 mm Unsuitable gloves materials: Rubber (natural, latex). Polyvinyl chloride (PVC).

SAFETY DATA SHEET

Isopropanol

Issued: 27/06/2017

Page 5

- Other skin and body protection:** Provide eyewash station and safety shower. Wear appropriate clothing to prevent repeated or prolonged skin contact. Use engineering controls to reduce air contamination to permissible exposure level. Wear apron or protective clothing in case of contact.
- Hygiene measures:** When using do not eat, drink or smoke. Take off immediately all contaminated clothing. Wash promptly if skin becomes contaminated. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Avoid inhalation of vapours/spray and contact with skin and eyes.
- Respiratory protection:** If ventilation is inadequate, suitable respiratory protection must be worn. Use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. A-P2 or ABEK-P2), in compliance with EN 141.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Appearance:	Liquid.
Colour:	Colourless.
Odour:	Alcoholic.
Melting point:	-89°C
Initial boiling point and range:	82°C @ 1013 hPa
Flash point:	12°C CC (Closed cup).
Evaporation rate:	3
Upper/lower flammability or explosive limits:	Lower flammable/explosive limit: 2% (V) Upper flammable/explosive limit: 12% (V)
Vapour pressure:	42 hPa @ 20°C 60.2 hPa @ 25°C
Vapour density:	1.05
Relative density:	0.7855 g/cm ³ @ 20°C
Solubility(ies):	Completely soluble in water.
Partition coefficient:	log Pow: 0.05 @ 25°C
Auto-ignition temperature:	425°C
Viscosity:	2.5 mPa s @ 20°C 2.1 mPa s @ 25°C
Other information:	Not available.
Refractive index:	1.376 - 1.378 @ 20°C
Molecular weight:	60.11

10. STABILITY AND REACTIVITY

- Reactivity:** The product is highly flammable. Vapours may form explosive mixtures with air. The following materials may react with the product: Strong oxidising agents. Strong acids.
- Chemical stability:**
- Stability:** Stable at normal ambient temperatures and when used as recommended.
- Possibility of hazardous reactions:** Will not polymerise. Vapours may form explosive mixture with air.
- Conditions to avoid:** Avoid heat, flames and other sources of ignition.

[cont...]

SAFETY DATA SHEET

Isopropanol

Issued: 27/06/2017

Page 7

Incompatible materials:

Materials to avoid: Strong acids. Oxidising agents. Alkali metals. Aluminium. Iron. Amines.

Hazardous decomposition products: None known.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Acute toxicity – oral:

Acute toxicity oral (LD₅₀ mg/kg): 5,840.0

Species: Rat

ATE oral (mg/kg): 5,840.0

Acute toxicity – dermal:

Acute toxicity dermal (LD₅₀ mg/kg): 10,000.0

Species: Rabbit

ATE dermal (mg/kg): 10,000.0

Serious eye damage/irritation: Causes serious eye irritation.

Skin sensitisation: Buehler test - Guinea pig: Not sensitising.

Germ cell mutagenicity:

Genotoxicity - in vitro: Ames test: Negative.

Specific target organ toxicity - single exposure:

STOT - single exposure: Vapours may cause drowsiness and dizziness.

Inhalation: Vapours may cause drowsiness and dizziness.

Ingestion: May cause discomfort if swallowed.

Skin contact: May cause skin irritation.

Eye contact: Causes serious eye irritation.

Target organs: Kidneys Heart & cardiovascular system Central nervous system Gastro-intestinal tract

Medical symptoms: Irritation of eyes and mucous membranes. Dilated pupils. Rhinitis (inflammation of the nasal mucous membranes). Upper respiratory irritation. General respiratory distress, unproductive cough. Skin irritation. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo.

12. ECOLOGICAL INFORMATION

Ecotoxicity: The product is not expected to be hazardous to the environment.

Toxicity:

Acute toxicity – fish: LC₅₀, 48 hours: >100 mg/l, *Leuciscus idus* (Golden orfe)

Acute toxicity – aquatic invertebrates: EC₅₀, 48 hours: >100 mg/l, *Daphnia magna*

Acute toxicity - aquatic plants: EC₅₀, 72 hours: >100 mg/l, *Scenedesmus subspicatus*

[cont...]

SAFETY DATA SHEET

Isopropanol

Issued: 27/06/2017

Page 8

Persistence and degradability: The product is readily biodegradable.

Biodegradation: Water - Degradation 53%:

Bioaccumulative potential: The product does not contain any substances expected to be bioaccumulating.

Partition coefficient: log Pow: 0.05 @ 25°C

Mobility in soil:

Mobility: No information available.

Results of PBT and vPvB assessment: This product does not contain any substances classified as PBT or vPvB.

Other adverse effects: None known

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

General information: Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods: Waste material and any included combustible absorbent and containers should be suitable for incineration at an approved facility. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. TRANSPORT INFORMATION

UN number:

UN No. (ADR/RID): 1219

UN No. (IMDG): 1219

UN No. (ICAO): 1219

UN proper shipping name:

Proper shipping name (ADR/RID): ISOPROPANOL (ISOPROPYL ALCOHOL)

Proper shipping name (IMDG): ISOPROPANOL (ISOPROPYL ALCOHOL)

Proper shipping name (ICAO): ISOPROPANOL (ISOPROPYL ALCOHOL)

Proper shipping name (ADN): ISOPROPANOL (ISOPROPYL ALCOHOL)

Transport hazard class(es):

ADR/RID class: 3

ADR/RID label: 3

IMDG class: 3

ICAO class/division: 3

Transport labels:



[con
t...]

SAFETY DATA SHEET

Isopropanol

Issued: 27/06/2017

Page 9

Packing group:

ADR/RID packing group: II

IMDG packing group: II

ICAO packing group: II

Environmental hazards:

Environmentally hazardous substance/marine pollutant: No.

Special precautions for user:

EmS: F-E, S-D

Emergency Action Code: 2YE

Tunnel restriction code: (D/E)

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Cat Z

15. REGULATORY INFORMATION

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

National regulations:

Health and Safety at Work etc. Act 1974 (as amended).

The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

Fire Precautions Act 1971.

EH40/2005 Workplace exposure limits.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18

December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16

December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

EU legislation:

The spraying of flammable liquids HSG178.

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18

December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16

December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Guidance:

Workplace Exposure Limits EH40.

The spraying of flammable liquids HSG178.

Chemical safety assessment: A chemical safety assessment has been carried out.

[cont...]

SAFETY DATA SHEET

Isopropanol

Issued: 27/06/2017

Page 10

Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Hazard statements in full: H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.