

Safety data sheet

according to UK REACH (SI 2020/1577) as amended

Printing date 14.03.2025

Version number 2 (replaces version 1)

Revision: 14.03.2025

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier**· Trade name: Iso-Propanol (IPA)****· Product Code:** 40-1700-01, 40-1700-05, 40-1700-10**· CAS Number:**

67-63-0

· EC number:

200-661-7

· Index number:

603-117-00-0

· 1.2 Relevant identified uses of the substance or mixture and uses advised against**· Product category** PC21 Laboratory chemicals**· Application of the substance / the mixture** Laboratory chemicals**· Uses advised against**

Any use involving aerosol formation or vapour release in excess of the assigned Workplace Exposure Limit where workers are exposed without suitable Respiratory Protective Equipment.

Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).

Processes involving the use of incompatible substances - refer to section 10.

Processes involving extreme heat use advised against.

· 1.3 Details of the supplier of the safety data sheet**· Supplier:**

Severn Biotech Ltd.

Unit 2,

Park Lane,

Kidderminster,

Worcestershire.

DY11 6TJ

UK

Tel: 0044 1562 825286

Fax: 0044 1562 825284

email: info@severnbiotech.com

· Further information obtainable from: Product safety department.**· 1.4 Emergency telephone number:**

Members of the public seeking specific information on poisons should contact:

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture**· Classification according to GB-CLP**

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

· 2.2 Label elements**· Labelling according to GB-CLP** The substance is classified and labelled according to the GB CLP regulation.

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· Hazard pictograms



GHS02 GHS07

· Signal word Danger

· Hazard-determining components of labelling:

Isopropyl alcohol

· 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, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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

P405 Store locked up.

P501 Dispose of contents/container in accordance with local regulations.

· Additional information:

Contains biocidal active substance(s): Isopropyl alcohol

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.1 Substances

· CAS No. Description

CAS: 67-63-0 Isopropyl alcohol

· Identification number(s)

· **EC number:** 200-661-7

· **Index number:** 603-117-00-0

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· After skin contact:

Immediately rinse with water.

If skin irritation continues, consult a doctor.

· After eye contact:

Check for and remove any contact lenses.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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- **After swallowing:**
Wash mouth out with water
Do not induce vomiting; call for medical help immediately.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
- **Information for doctor:** Treat symptomatically and supportively.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide
Hydrocarbons
In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
Flammable. Vapors may travel to source of ignition and flash back.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.
- **Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Keep ignition sources away - no smoking.
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Do not allow to penetrate the ground/soil.
Do not allow product to reach sewage system or any water course in the undiluted form.
Prevent seepage into sewage system, workpits and cellars.
- **6.3 Methods and material for containment and cleaning up:**
Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product in the undiluted form.

Welding and other hot work operations in the work area must only be permitted under supervision.

Conduct maintenance and other work on or in storage/reactor/mixing vessels or closed spaces ONLY under strict Permit to Work conditions.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Vapour is heavier than air. Beware of accumulation in pits and confined spaces.

· Information about fire - and explosion protection:

Flammable gas-air mixtures may form in empty receptacles.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

Prevent any seepage into the ground.

Store in a cool location.

· Information about storage in one common storage facility: Store away from oxidising agents.

· Further information about storage conditions:

Maximum storage temperature: 30 °C

Store in cool, dry conditions in well sealed receptacles.

· Storage class: 3

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

CAS: 67-63-0 Isopropyl alcohol

WEL Short-term value: 1250 mg/m³, 500 ppm

Long-term value: 999 mg/m³, 400 ppm

· DNELs

CAS: 67-63-0 Isopropyl alcohol

Oral	Long-term systemic effects	26 mg/kg bw/day (general population)
	Short-term systemic effects	51 mg/kg bw/day (general population)
Dermal	Long-term systemic effects	319 mg/kg bw/day (general population)
		888 mg/kg bw/day (worker)
Inhalative	Long-term systemic effects	89 mg/m ³ (general population)
		500 mg/m ³ (worker)
	Short-term systemic effects	178 mg/m ³ (general population)
		1,000 mg/m ³ (worker)

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- **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

- **Appropriate engineering controls** No further data; see section 7.

- **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Ensure that washing facilities are available at the work place.

Take note of assigned Workplace Exposure Limits.

Do not eat, drink, smoke or sniff while working.

A safe system of work must be formulated and followed to ensure safe working with this product. Relevant workers must receive suitable and sufficient training and supervision.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Ensure that eyewash stations and safety showers are close to the workstation location.

· **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A for organic vapours

· **Hand protection**



Protective gloves.

Use gloves tested and approved under appropriate government standards such as NIOSH (US) or EN374 (EU).

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Butyl rubber, BR

Chloroprene rubber, CR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

Break-through time: > 480 minutes

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Safety glasses with side-shields conforming to EN166.

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

· **Body protection:**



Flame retardant antistatic protective clothing.

Body protection must be chosen depending on product properties, activity and possible exposure.

- **Environmental exposure controls** Do not let product enter drains. Risk of explosion.

- **Risk management measures** The operators shall be instructed adequately.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Physical state	Liquid
· Colour:	Clear
· Odour:	Alcohol-like
· Odour threshold:	Not determined.
· Melting point/freezing point:	-89.5 °C
· Boiling point or initial boiling point and boiling range	82 °C (CAS: 67-63-0 Isopropyl alcohol)
· Flammability	Highly flammable.
· Lower and upper explosion limit	
· Lower:	2 Vol % (CAS: 67-63-0 Isopropyl alcohol)
· Upper:	12 Vol % (CAS: 67-63-0 Isopropyl alcohol)
· Flash point:	13 °C
· Auto-ignition temperature:	425 °C (CAS: 67-63-0 Isopropyl alcohol)
· Decomposition temperature:	Not determined.
· pH	Not determined.
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic at 20 °C:	2.43 mPas
· Solubility	
· water at 20 °C:	1 g/l
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	43 hPa (CAS: 67-63-0 Isopropyl alcohol)
· Density and/or relative density	
· Density at 20 °C:	0.8 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.

· 9.2 Other information

	NOTE: The physical data presented above are typical values and should not be construed as a specification.
· Appearance:	
· Form:	Liquid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Not determined.
· Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Solvent content:	
· Organic solvents:	100.0 %
· VOC (EC)	100.00 %
· Molecular weight	60 g/mol
· Change in condition	
· Evaporation rate	Not determined.

· Information with regard to physical hazard classes

· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Highly flammable liquid and vapour.

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· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Heating will cause rise in pressure of container with risk of bursting.
At elevated temperatures, explosive vapour/air mixtures may be formed.
- **10.3 Possibility of hazardous reactions**
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.
Reacts violently with oxidising agents.
Reacts with strong acids.
Reacts with alkaline metals.
Reacts with amines.
- **10.4 Conditions to avoid** Heat and static discharge.
- **10.5 Incompatible materials:**
Substances specifically listed in section 10.3 as incompatible.
Strong oxidising agents.
- **10.6 Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Hydrocarbons

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

CAS: 67-63-0 Isopropyl alcohol

Oral LD50 > 2,000 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** May cause drowsiness or dizziness.

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- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Subacute to chronic toxicity:** Prolonged or repeated skin contact may irritate and cause dermatitis.
- **Additional toxicological information:**
 ROUTES OF EXPOSURE: Can be absorbed into the body by inhalation and by ingestion.
 Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.
- **11.2 Information on other hazards**

· Endocrine disrupting properties
--

Substance is not listed.

SECTION 12: Ecological information

- **12.1 Toxicity**

· Aquatic toxicity:

CAS: 67-63-0 Isopropyl alcohol

EC50 (96 h) > 10,000 mg/l (Bacteria)

- **12.2 Persistence and degradability** Readily biodegradable
- **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
 Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
 Recommended Hierarchy of Controls:
 - Minimise waste;
 - Reuse if not contaminated;
 - Recycle, if possible; or
 - Safe disposal (if all else fails).
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
 Contact waste processors for recycling information.
 Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.
- **Uncleaned packaging:**
- **Recommendation:**
 Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
 Container remains hazardous when empty. Continue to observe all precautions.

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Disposal must be made according to official regulations.

Containers, even those that are “empty,” may contain residues that can develop flammable and/or hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· **14.1 UN number or ID number**

· **ADR/RID/ADN, IMDG, IATA** UN1219

· **14.2 UN proper shipping name**

· **ADR/RID/ADN** UN1219 ISOPROPANOL (ISOPROPYL ALCOHOL)
· **IMDG, IATA** ISOPROPANOL (ISOPROPYL ALCOHOL)

· **14.3 Transport hazard class(es)**

· **ADR/RID/ADN**

· **Class** 3 (F1) Flammable liquids.
· **Label** 3

· **IMDG, IATA**

· **Class** 3 Flammable liquids.
· **Label** 3

· **14.4 Packing group**

· **ADR/RID/ADN, IMDG, IATA** II

· **14.5 Environmental hazards:** Not applicable.

· **14.6 Special precautions for user**

· **Hazard identification number (Kemler code):** Warning: Flammable liquids. 33

· **Hazchem Code:** •2YE

· **EMS Number:** F-E,S-D

· **Stowage Category** B

· **14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

· **Transport/Additional information:**

· **ADR/RID/ADN**

· **Limited quantities (LQ)** 1L

· **Excepted quantities (EQ)** Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **Transport category** 2

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· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Poisons Act**

- **Regulated explosives precursors**

Substance is not listed.

- **Regulated poisons**

Substance is not listed.

- **Reportable explosives precursors**

Substance is not listed.

- **Reportable poisons**

Substance is not listed.

- **Control Of Major Accident Hazards Regulations 2015 (COMAH)**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **COMAH category** P5c
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t

- **National regulations:**

- **Information about limitation of use:**

Class	Share in %
NK	100.0

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

- **Training hints**

This product should only be handled by workers who have received sufficient training in the safe handling and use of chemical products.

- **Department issuing SDS:** Product safety department.

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

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IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Flam. Liq. 2: Flammable liquids – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

GB
