

according to Regulation UK SI 2019/758 and UK SI 2020/1577 as amended

Creation Date 01-Sep-2009

Revision Date 13-Oct-2023

Revision Number 19

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product Description:	<u>Isopropanol</u>
Cat No. :	444250000; 444250050
Synonyms	2-Propanol; IPA; Isopropyl alcohol; Propan-2-ol; Isopropanol
Index No	603-117-00-0
CAS No	67-63-0
EC No	200-661-7
Molecular Formula	C3 H8 O
REACH registration number	01-2119457558-25

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Sector of use	Laboratory chemicals. SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites
Product category	PC21 - Laboratory chemicals
Process categories	PROC15 - Use as a laboratory reagent
Environmental release category	ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)
Uses advised against	No Information available

#### 1.3. Details of the supplier of the safety data sheet

Company
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**UK entity/business name** Fisher Scientific UK Bishop Meadow Road, Loughborough, Leicestershire LE11 5RG, United Kingdom

#### EU entity/business name Thermo Fisher Scientific

Janssen Pharmaceuticalaan 3a, 2440 Geel, Belgium

E-mail address

begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

#### **SECTION 2: HAZARDS IDENTIFICATION**

#### 2.1. Classification of the substance or mixture

CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Physical hazards

#### Isopropanol

#### Revision Date 13-Oct-2023

#### Flammable liquids

#### Health hazards

Serious Eye Damage/Eye Irritation Specific target organ toxicity - (single exposure)

#### **Environmental hazards**

Based on available data, the classification criteria are not met

Category 2 (H225)

Category 2 (H319) Category 3 (H336)

Full text of Hazard Statements: see section 16

2.2. Label elements



Signal Word

Danger

#### **Hazard Statements**

H225 - Highly flammable liquid and vapor

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

P240 - Ground and bond container and receiving equipment

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

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

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

#### 2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)

This product does not contain any known or suspected endocrine disruptors

### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### 3.1. Substances

Component	CAS No	EC No	Weight %	CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567
Isopropyl alcohol	67-63-0	200-661-7	>95	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336)

#### **REACH registration number**

01-2119457558-25

Full text of Hazard Statements: see section 16

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

#### 4.1. Description of first aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
Ingestion	Do NOT induce vomiting. Get medical attention.
Inhalation	Remove to fresh air. Get medical attention. If not breathing, give artificial respiration.
Self-Protection of the First Aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

#### 4.2. Most important symptoms and effects, both acute and delayed

Difficulty in breathing. May cause central nervous system depression: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

#### 4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically. Symptoms may be delayed.

**SECTION 5: FIREFIGHTING MEASURES** 

#### 5.1. Extinguishing media

#### Suitable Extinguishing Media

CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam. Water mist may be used to cool closed containers.

#### Extinguishing media which must not be used for safety reasons

Do not use water jetstream. Do not use a solid water stream as it may scatter and spread fire.

#### 5.2. Special hazards arising from the substance or mixture

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

#### Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), peroxides.

#### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

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

#### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Remove all sources of ignition. Take precautionary measures against static discharges. Avoid contact with skin, eyes or clothing.

#### 6.2. Environmental precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

#### 6.3. Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Soak up with inert absorbent material. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Keep in suitable, closed containers for disposal.

#### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

#### SECTION 7: HANDLING AND STORAGE

#### 7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Keep away from open flames, hot surfaces and sources of ignition. Use spark-proof tools and explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing. Do not breathe mist/vapors/spray. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

#### 7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and flame. Flammables area. Keep container tightly closed in a dry and well-ventilated place.

Technical Rules for Hazardous Substances (TRGS) 510 Class 3 Storage Class (LGK) (Germany)

7.3. Specific end use(s)

Use in laboratories

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

#### 8.1. Control parameters

#### Exposure limits

List source(s): **UK** - EH40/2005 Work Exposure Limits, Fourth edition. Published 2020. **IRE -** 2021 Code of Practice for the Chemical Agents Regulations, Schedule 1. Published by the Health and Safety Authority

#### Isopropanol

#### Revision Date 13-Oct-2023

Component	The United Kingdom	European Union	Ireland
Isopropyl alcohol	STEL: 500 ppm 15 min		TWA: 200 ppm 8 hr.
	STEL: 1250 mg/m3 15 min		STEL: 400 ppm 15 min
	TWA: 400 ppm 8 hr		Skin
	TWA: 999 mg/m <sup>3</sup> 8 hr		

**Biological limit values** 

List source(s):

#### Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL) See table for values

Component	Acute effects local	Acute effects	Chronic effects local	Chronic effects
	(Dermal)	systemic (Dermal)	(Dermal)	systemic (Dermal)
Isopropyl alcohol 67-63-0 ( >95 )				DNEL = 888mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Isopropyl alcohol 67-63-0 ( >95 )				DNEL = 500mg/m <sup>3</sup>

#### **Predicted No Effect Concentration (PNEC)**

According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified. See values below.

Component	Fresh water	Fresh water	Water Intermittent	Microorganisms in	Soil (Agriculture)
		sediment		sewage treatment	
Isopropyl alcohol	PNEC = 140.9mg/L	PNEC = 552mg/kg	PNEC = 140.9mg/L	PNEC = 2251mg/L	PNEC = 28mg/kg
67-63-0 (>95)		sediment dw			soil dw

Component	Marine water	Marine water sediment	Marine water intermittent	Food chain	Air
Isopropyl alcohol	PNEC = 140.9mg/L	PNEC = 552mg/kg		PNEC = 160mg/kg	
67-63-0 (>95)	_	sediment dw		food	

#### 8.2. Exposure controls

#### **Engineering Measures**

Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment. Ensure adequate ventilation, especially in confined areas. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment Eye Protection Goggles (European standard - EN 166)

Hand Protection	Protectiv	ve gloves		
<b>Glove material</b> Butyl rubber Nitrile rubber	Breakthrough time > 480 minutes > 360 - 480 minutes	<b>Glove thickness</b> 0.5 mm 0.35 - 0.55 mm	EU standard EN 374	Glove comments Permeation rate < 0.9 μg/cm2/min As tested under EN374-3 Determination o Resistance to Permeation by Chemicals
Viton (R) Neoprene	> 480 minutes < 40 minutes	0.4 mm 0.7 mm		

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly
Large scale/emergency use	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced <b>Recommended Filter type:</b> Organic gases and vapours filter Type A Brown conforming to EN14387
Small scale/Laboratory use	Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. <b>Recommended half mask:-</b> Valve filtering: EN405; Half mask: EN140; plus filter, EN 141 When RPE is used a face piece Fit Test should be conducted
Environmental exposure controls	No information available.

#### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

#### 9.1. Information on basic physical and chemical properties

Physical State	Liquid	
Appearance	Colorless	
Odor	Alcohol-like	
Odor Threshold	No data available	
Melting Point/Range	-89.5 °C / -129.1 °F	
Softening Point	No data available	
Boiling Point/Range	81 - 83 °C / 177.8 - 181.4 °F	@ 760 mmHg
Flammability (liquid)	Highly flammable	On basis of test data
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	Lower 2 Vol%	
	Upper 12 Vol%	
Flash Point	12 °C / 53.6 °F	Method - Abel Closed Cup (BS 2000 Part 170, IP
• · · · · · ·		170, AS/NZS 2106)
Autoignition Temperature	425 °C / 797 °F	ASTM E-659
Decomposition Temperature	No data available	
рН	7	1% aq. sol
Viscosity	2.27 mPa.s at 20 °C	
Water Solubility	Miscible	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/wat	er)	
Component	log Pow	
Isopropyl alcohol	0.05	
Vapor Pressure	43 mmHg @ 20 °C	
Density / Specific Gravity	0.785	ASTM D-4052
Bulk Density	Not applicable	Liquid
Vapor Density	2.1 @ 20 °C / 68 °F	(Air = 1.0)
Particle characteristics	Not applicable (liquid)	

9.2. Other information

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Molecular Formula Molecular Weight VOC Content(%) Explosive Properties	C3 H8 O 60.1 100% (Organic Carbon (by mass) = 59.9 %) (EC/1999/13) Not explosive explosive air/vapour mixtures possible Vapors may form explosive mixtures with air
Evaporation Rate Thermal conductivity Refractive index Surface tension Coefficient of expansion Specific heat capacity Dielectric constant Heat of vapourisation	1.7 - ASTM D 3539 (Butyl acetate = 1.0) 0.137 W/m °C at 20 °C / 68 °F 1.377 at 20 °C / 68 °F (ASTM D-1218) 22.7 mN/m at 20 °C / 68 °F 0.0009 / °C 3 kJ/kg °C at 20 °C / 68 °F 18.6 at 20 °C / 68 °F 665 J/g
	SECTION 10: STABILITY AND REACTIVITY
10.1. Reactivity	None known, based on information available
10.2. Chemical stability	Stable under normal conditions.

- 10.3. Possibility of hazardous reactions
- Hazardous PolymerizationHazardous polymerization does not occur.Hazardous ReactionsNone under normal processing.
- 10.4. Conditions to avoid

Heat, flames and sparks. Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents. Acids. Halogens. Acid anhydrides.

#### 10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). peroxides.

SECTION 11:	TOXICOLOGICAL	<b>INFORMATION</b>
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#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### **Product Information**

(a) acute toxicity;

Oral Dermal Inhalation Based on available data, the classification criteria are not met Based on available data, the classification criteria are not met Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Isopropyl alcohol	5045 mg/kg (Rat)	12800 mg/kg (Rat)	72.6 mg/L (Rat)4 h
	3600 mg/kg (Mouse)		

(b) skin corrosion/irritation;

Based on available data, the classification criteria are not met

Isopropanol

(c) serious eye damage/irritation; Category 2

(d) respiratory or skin sensitization; Respiratory Skin	Based on available data, the classification criteria are not met Based on available data, the classification criteria are not met
(e) germ cell mutagenicity;	Based on available data, the classification criteria are not met
(f) carcinogenicity;	Based on available data, the classification criteria are not met There are no known carcinogenic chemicals in this product
(g) reproductive toxicity;	Based on available data, the classification criteria are not met
(h) STOT-single exposure;	Category 3
Results / Target organs	Central nervous system (CNS).
(i) STOT-repeated exposure;	Based on available data, the classification criteria are not met
Target Organs	None known.
(j) aspiration hazard;	Based on available data, the classification criteria are not met
Symptoms / effects,both acute and delayed	May cause central nervous system depression. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
11.2. Information on other hazards	

11.2. Information on other hazards

**Endocrine Disrupting Properties** 

Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

### SECTION 12: ECOLOGICAL INFORMATION

#### 12.1. Toxicity Ecotoxicity effects

. Do not empty into drains.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Isopropyl alcohol	LC50: = 9640 mg/L, 96h flow-through (Pimephales promelas) LC50: > 1400000 μg/L, 96h (Lepomis macrochirus) LC50: = 11130 mg/L, 96h static (Pimephales promelas) LC50: = 10000000 μg/L, 96h (Daphnia)	13299 mg/L EC50 = 48 h 9714 mg/L EC50 = 24 h	EC50: > 1000 mg/L, 72h (Desmodesmus subspicatus) EC50: > 1000 mg/L, 96h (Desmodesmus subspicatus)

Component	Microtox	M-Factor
Isopropyl alcohol	= 35390 mg/L EC50 Photobacterium phosphoreum	
	5 min	

#### 12.2. Persistence and degradability Expected to be biodegradable

Isopropanol

#### Persistence

Persistence is unlikely, based on information available.

Bioaccumulation is unlikely

#### 12.3. Bioaccumulative potential

Component log Pow **Bioconcentration factor (BCF)** Isopropyl alcohol 0.05 No data available The product contains volatile organic compounds (VOC) which will evaporate easily from all 12.4. Mobility in soil surfaces Will likely be mobile in the environment due to its volatility. Disperses rapidly in air Surface tension 22.7 mN/m at 20 °C / 68 °F 12.5. Results of PBT and vPvB Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent assessment and very bioaccumulative (vPvB). 12.6. Endocrine disrupting properties **Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors 12.7. Other adverse effects **Persistent Organic Pollutant** This product does not contain any known or suspected substance **Ozone Depletion Potential** This product does not contain any known or suspected substance **SECTION 13: DISPOSAL CONSIDERATIONS** 13.1. Waste treatment methods Waste from Residues/Unused Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. Products

Contaminated Packaging	Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.
European Waste Catalogue (EWC)	According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

Other Information Waste codes should be assigned by the user based on the application for which the product was used. Do not flush to sewer. Can be landfilled or incinerated, when in compliance with local regulations.

### **SECTION 14: TRANSPORT INFORMATION**

#### IMDG/IMO

14.1. UN number	UN1219
14.2. UN proper shipping name	Isopropanol (Isopropyl alcohol)
14.3. Transport hazard class(es)	3
14.4. Packing group	Π

<u>ADR</u>

Isopropanol

14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group	UN1219 Isopropanol (Isopropyl alcohol) 3 II
IATA	
<u>14.1. UN number</u> 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group	UN1219 Isopropanol 3 II
14.5. Environmental hazards	No hazards identified
14.6. Special precautions for user	No special precautions required.
14.7. Maritime transport in bulk according to IMO instruments	Not applicable, packaged goods

### **SECTION 15: REGULATORY INFORMATION**

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Isopropyl alcohol	67-63-0	200-661-7	-	-	Х	Х	KE-29363	Х	Х
Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive		DSL	NDSL	AICS	NZIoC	PICCS
Isopropyl alcohol	67-63-0	Х		IVE	Х	-	Х	Х	Х

Legend: X - Listed '-' - Not Listed KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

#### Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization		REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Isopropyl alcohol	67-63-0	-	Use restricted. See item 75. (see link for restriction details)	-

#### **REACH links**

https://echa.europa.eu/substances-restricted-under-reach

#### Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report	
		Notification	Requirements	
Isopropyl alcohol	67-63-0	Not applicable	Not applicable	

#### Isopropanol

Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)? Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

#### **National Regulations**

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

WGK Classification

See table for values

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Isopropyl alcohol	WGK1	

Component	France - INRS (Tables of occupational diseases)
Isopropyl alcohol	Tableaux des maladies professionnelles (TMP) - RG 84

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
lsopropyl alcohol 67-63-0 ( >95 )		Group I	

#### 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has been conducted by the manufacturer/importer

#### **SECTION 16: OTHER INFORMATION**

#### Full text of H-Statements referred to under sections 2 and 3

H225 - Highly flammable liquid and vapor

H319 - Causes serious eye irritation

H336 - May cause drowsiness or dizziness

#### Legend

CAS - Chemical Abstracts Service

Substances/EU List of Notified Chemical Substances PICCS - Philippines Inventory of Chemicals and Chemical Substances **IECSC** - Chinese Inventory of Existing Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances

Inventory EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List **ENCS** - Japanese Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances NZIOC - New Zealand Inventory of Chemicals

TSCA - United States Toxic Substances Control Act Section 8(b)

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

#### Revision Date 13-Oct-2023

**DNEL** - Derived No Effect Level Predicted No Effect Concentration (PNEC) **RPE** - Respiratory Protective Equipment LD50 - Lethal Dose 50% LC50 - Lethal Concentration 50% EC50 - Effective Concentration 50% NOEC - No Observed Effect Concentration POW - Partition coefficient Octanol:Water PBT - Persistent, Bioaccumulative, Toxic vPvB - very Persistent, very Bioaccumulative ADR - European Agreement Concerning the International Carriage of ICAO/IATA - International Civil Aviation Organization/International Air Dangerous Goods by Road Transport Association IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code Ships **OECD** - Organisation for Economic Co-operation and Development ATE - Acute Toxicity Estimate BCF - Bioconcentration factor VOC - (Volatile Organic Compound) Key literature references and sources for data https://echa.europa.eu/information-on-chemicals Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**Training Advice** 

Isopropanol

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

Creation Date	01-Sep-2009
Revision Date	13-Oct-2023
Revision Summary	Not applicable.

### This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

## End of Safety Data Sheet

MARPOL - International Convention for the Prevention of Pollution from