

according to Regulation (EC) No. 1907/2006

Creation Date 01-Sep-2009 Revision Date 02-May-2025 Revision Number 6

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Description: 2-Propanol 22906

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 01-2119457558-25-0196

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

Recommended Use Laboratory chemicals.

Sector of use 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

Thermo Fisher (Kandel) GmbH

Erlenbachweg 2, 76870 Kandel, Germany

Tel: +49 (0) 721 84007 280 Fax: +49 (0) 721 84007 300

Swiss distributor - Fisher Scientific AG Neuhofstrasse 11, CH 4153 Reinach

Tel: +41 (0) 56 618 41 11

https://www.fishersci.ch/ch/en/customer-help-

support/forms/email-us.html

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

customers in Switzerland:

Tox Info Suisse Emergency Number: 145 (24hr)

Tox Info Suisse: +41-44 251 51 51 (Emergency number from abroad)

Chemtrec (24h) Toll-Free: 0800 564 402 Chemtrec Local: +41-43 508 20 11 (Zurich)

Section 2: HAZARDS IDENTIFICATION

Page 2/14

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards

Flammable liquids Category 2 (H225)

Health hazards

Serious Eye Damage/Eye Irritation Category 2 (H319)
Specific target organ toxicity - (single exposure) Category 3 (H336)

Environmental hazards

Based on available data, the classification criteria are not met

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

2-Propanol

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Isopropyl alcohol	67-63-0	200-661-7	>95	Flam. Liq. 2 (H225)
				Eye Irrit. 2 (H319)
				STOT SE 3 (H336)

REACH registration number	01-2119457558-25-0196

Full text of Hazard Statements: see section 16

Section 4: First aid measures

4.1. Description of first aid measures

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get **Eve Contact**

medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if

symptoms occur.

Do NOT induce vomiting. Get medical attention. Ingestion

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

CO₂, 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 (CO2), peroxides.

Revision Date 02-May-2025

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 Storage Class (LGK) (Germany)

Class 3

Switzerland - Storage of hazardous substances

Storage class - SC 3

https://www.kvu.ch/de/themen/stoffe-und-produkte https://www.kvu.ch/fr/themes/substances-et-produits https://www.kvu.ch/it/temi/sostanze-e-prodotti

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, Forth edition. Published 2020. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority. **CH** - The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am Arbeitsplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund).

Component	European Union	The United Kingdom	France	Belgium	Spain
Isopropyl alcohol		STEL: 500 ppm 15 min STEL: 1250 mg/m³ 15 min	STEL / VLCT: 400 ppm. STEL / VLCT: 980 mg/m³.	TWA: 200 ppm 8 uren TWA: 500 mg/m³ 8 uren STEL: 400 ppm 15	STEL / VLA-EC: 400 ppm (15 minutos). STEL / VLA-EC: 1000
		TWA: 400 ppm 8 hr TWA: 999 mg/m ³ 8 hr		minuten STEL: 1000 mg/m³ 15 minuten	mg/m³ (15 minutos). TWA / VLA-ED: 200 ppm (8 horas) TWA / VLA-ED: 500 mg/m³ (8 horas)

Component	Italy	Germany	Portugal	The Netherlands	Finland
Isopropyl alcohol		TWA: 200 ppm (8	STEL: 400 ppm 15		TWA: 200 ppm 8
		Stunden). AGW -	minutos		tunteina
		exposure factor 2	TWA: 200 ppm 8 horas		TWA: 500 mg/m ³ 8
		TWA: 500 mg/m ³ (8			tunteina
		Stunden). AGW -			STEL: 250 ppm 15
		exposure factor 2			minuutteina
		TWA: 200 ppm (8			STEL: 620 mg/m ³ 15
		Stunden). MAK			minuutteina
		TWA: 500 mg/m ³ (8			
		Stunden). MAK			
		Höhepunkt: 400 ppm			
		Höhepunkt: 1000 mg/m ³			

Component	Austria	Austria Denmark		Poland	Norway
Isopropyl alcohol	MAK-KZGW: 800 ppm	TWA: 200 ppm 8 timer	STEL: 400 ppm 15	STEL: 1200 mg/m ³ 15	TWA: 100 ppm 8 timer
	15 Minuten	TWA: 490 mg/m ³ 8 timer	Minuten	minutach	TWA: 245 mg/m ³ 8 timer
	MAK-KZGW: 2000	STEL: 400 ppm 15	STEL: 1000 mg/m ³ 15	TWA: 900 mg/m ³ 8	STEL: 150 ppm 15
	mg/m ³ 15 Minuten	minutter	Minuten	godzinach	minutter. value
	MAK-TMW: 200 ppm 8	STEL: 980 mg/m ³ 15	TWA: 200 ppm 8		calculated
	Stunden	minutter	Stunden		STEL: 306.25 mg/m ³ 15
	MAK-TMW: 500 mg/m ³		TWA: 500 mg/m ³ 8		minutter. value
	8 Stunden		Stunden		calculated

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Isopropyl alcohol	TWA: 980.0 mg/m ³	TWA-GVI: 400 ppm 8	TWA: 200 ppm 8 hr.		TWA: 500 mg/m ³ 8
	STEL: 1225.0 mg/m ³	satima.	STEL: 400 ppm 15 min		hodinách.
		TWA-GVI: 999 mg/m ³ 8	Skin		Potential for cutaneous
		satima.			absorption
		STEL-KGVI: 500 ppm			Ceiling: 1000 mg/m ³
		15 minutama.			
		STEL-KGVI: 1250			
		mg/m ³ 15 minutama.			

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Isopropyl alcohol	TWA: 150 ppm 8		STEL: 500 ppm	STEL: 1000 mg/m ³ 15	TWA: 200 ppm 8
	tundides.		STEL: 1225 mg/m ³	percekben. CK	klukkustundum.
	TWA: 350 mg/m ³ 8		TWA: 400 ppm	STEL: 400 ppm 15	TWA: 490 mg/m ³ 8
	tundides.		TWA: 980 mg/m ³	percekben. CK	klukkustundum.
	STEL: 250 ppm 15		_	TWA: 500 mg/m ³ 8	Skin notation
	minutites.			órában. AK	Ceiling: 400 ppm
	STEL: 600 mg/m ³ 15			TWA: 200 ppm 8	Ceiling: 980 mg/m ³
	minutites.			órában. AK	
				lehetséges borön	
				keresztüli felszívódás	

2-Propanol

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Isopropyl alcohol	STEL: 600 mg/m ³	TWA: 150 ppm IPRD			TWA: 81 ppm 8 ore
	TWA: 350 mg/m ³	TWA: 350 mg/m ³ IPRD			TWA: 200 mg/m ³ 8 ore
	_	STEL: 250 ppm			STEL: 203 ppm 15
		STEL: 600 mg/m ³			minute
					STEL: 500 mg/m ³ 15
					minute

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Isopropyl alcohol	TWA: 10 mg/m ³ 1761	Ceiling: 1000 mg/m ³	TWA: 200 ppm 8 urah	Indicative STEL: 250	
	MAC: 50 mg/m ³	TWA: 200 ppm	TWA: 500 mg/m ³ 8 urah	ppm 15 minuter	
	_	TWA: 500 mg/m ³	STEL: 400 ppm 15	Indicative STEL: 600	
		_	minutah	mg/m ³ 15 minuter	
			STEL: 1000 mg/m ³ 15	TLV: 150 ppm 8 timmar.	
			minutah	NGV	
				TLV: 350 mg/m ³ 8	
				timmar. NGV	

Biological limit values

List source(s):

Component	European Union	United Kingdom	France	Spain	Germany
Isopropyl alcohol				Acetone: 40 mg/L urine	Acetone: 25 mg/L whole
				end of workweek	blood (end of shift)
					Acetone: 25 mg/L urine
					(end of shift)

Component	Italy	Finland	Denmark	Bulgaria	Romania
Isopropyl alcohol					Acetone: 50 mg/L urine
					end of shift

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS70 General methods for sampling airborne gases and vapours

MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography

MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

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

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

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)

ALFAA22906

Revision Date 02-May-2025

2-Propanol

Revision D	ate 02-M	av-2025
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		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 67-63-0 (>95)	PNEC = 140.9mg/L	PNEC = 552mg/kg sediment dw		PNEC = 160mg/kg 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 Protective gloves

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

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

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

Recommended Filter type: 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.

Recommended half mask:- 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

2-Propanol Revision Date 02-May-2025

Physical State Liquid

Colorless **Appearance** Alcohol-like Odor **Odor Threshold** No data available Melting Point/Range -89.5 °C / -129.1 °F **Softening Point** No data available

81 - 83 °C / 177.8 - 181.4 °F **Boiling Point/Range** @ 760 mmHg Flammability (liquid) Highly flammable On basis of test data Liquid

Flammability (solid, gas) Not applicable **Explosion Limits** Lower 2 Vol%

Upper 12 Vol%

12 °C / 53.6 °F **Flash Point** Method - Abel Closed Cup (BS 2000 Part 170, IP

170, AS/NZS 2106)

ASTM E-659

Autoignition Temperature 425 °C / 797 °F **Decomposition Temperature** No data available

1% ag. sol **Viscosity** 2.27 mPa.s at 20 °C

Water Solubility Miscible

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Component log Pow Isopropyl alcohol 0.05

Vapor Pressure 43 mmHg @ 20 °C

ASTM D-4052 **Density / Specific Gravity** 0.785 **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

C3 H8 O **Molecular Formula Molecular Weight** 60.1

VOC Content(%) 100% (Organic Carbon (by mass) = 59.9 %) (EC/1999/13)

Explosive Properties Not explosive explosive air/vapour mixtures possible Vapors may form explosive mixtures

with air

Evaporation Rate 1.7 - ASTM D 3539 (Butyl acetate = 1.0)

0.137 W/m °C at 20 °C / 68 °F Thermal conductivity 1.377 at 20 °C / 68 °F (ASTM D-1218) Refractive index

22.7 mN/m at 20 °C / 68 °F **Surface tension**

0.0009 / °C Coefficient of expansion

Specific heat capacity 3 kJ/kg °C at 20 °C / 68 °F Dielectric constant 18.6 at 20 °C / 68 °F

Heat of vapourisation 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 Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

10.4. Conditions to avoid

2-Propanol

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

Revision Date 02-May-2025

ianition.

10.5. Incompatible materials

Strong oxidizing agents. Acids. Halogens. Acid anhydrides.

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO2). peroxides.

Section 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information

(a) acute toxicity;

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

Based on available data, the classification criteria are not met (b) skin corrosion/irritation;

(c) serious eye damage/irritation; Category 2

(d) respiratory or skin sensitization;

Based on available data, the classification criteria are not met 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;

(f) carcinogenicity; Based on available data, the classification criteria are not met

There are no known carcinogenic chemicals in this product

Based on available data, the classification criteria are not met (g) reproductive toxicity;

Category 3 (h) STOT-single exposure;

Central nervous system (CNS). Results / Target organs

Based on available data, the classification criteria are not met (i) STOT-repeated exposure:

None known. **Target Organs**

(j) aspiration hazard; Based on available data, the classification criteria are not met

Symptoms / effects, both acute and May cause central nervous system depression. Inhalation of high vapor concentrations may

cause symptoms like headache, dizziness, tiredness, nausea and vomiting. delayed

2-Propanol Revision Date 02-May-2025

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

Persistence

Persistence is unlikely, based on information available.

12.3. Bioaccumulative potential Bioaccumulation is unlikely

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

22.7 mN/m at 20 °C / 68 °F Surface tension

12.5. Results of PBT and vPvB

assessment

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

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 Ozone Depletion Potential

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

Section 13: Disposal considerations

13.1. Waste treatment methods

2-Propanol Revision Date 02-May-2025

Waste from Residues/Unused

Products

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.

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.

Switzerland - Waste Ordinance Disposal should be in accordance with applicable regional, national and local laws and

regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance,

ADWO) SR 814.600

https://www.fedlex.admin.ch/eli/cc/2015/891/en

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 II

ADR

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 II

<u>IATA</u>

14.1. UN numberUN121914.2. UN proper shipping nameIsopropanol

14.3. Transport hazard class(es) 3 14.4. Packing group

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)

2-Propanol

Revision Date 02-May-2025

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Isopropyl alcohol	67-63-0	200-661-7	1	ı	X	Χ	KE-29363	Χ	Х
Component	CAS No	TSCA	notific	ventory ation -	DSL	NDSL	AICS	NZIoC	PICCS
	 	L .,			.,		L		— , , —
Isopropyl alcohol	67-63-0	X	ACT	IVE	X	-	X	Χ	X

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 entry 75. (see link for restriction details)	٠

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) -	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report	
		Qualifying Quantities for Major Accident		
		Notification	Requirements	
Isopropyl alcohol	67-63-0 Not applicable		Not applicable	

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)
Ī	Isopropyl alcohol	Tableaux des maladies professionnelles (TMP) - RG 84

Swiss Regulations

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

2-Propanol Revision Date 02-May-2025

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
Isopropyl 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 eve irritation

H336 - May cause drowsiness or dizziness

Legend

CAS - Chemical Abstracts Service

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

Inventory

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

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ICAO/IATA - International Civil Aviation Organization/International Air

MARPOL - International Convention for the Prevention of Pollution from

ENCS - Japanese Existing and New Chemical Substances AICS - Australian Inventory of Chemical Substances NZIoC - New Zealand Inventory of Chemicals

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50%

NOEC - No Observed Effect Concentration PBT - Persistent, Bioaccumulative, Toxic

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

LD50 - Lethal Dose 50%

Transport Association

ATE - Acute Toxicity Estimate

VOC - (volatile organic compound)

EC50 - Effective Concentration 50% POW - Partition coefficient Octanol:Water vPvB - very Persistent, very Bioaccumulative

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime

Dangerous Goods Code **OECD** - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Key literature references and sources for data

Training Advice

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

Ships

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.

Prepared By Health, Safety and Environmental Department

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This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

ALFAA22906 Page 13/14

Revision Date 02-May-2025

COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006

For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2, Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and Preparations).

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