2-propanol

Safety Data Sheet

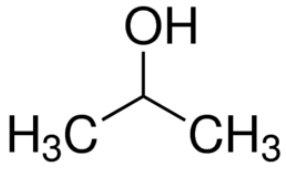
according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

Doc No: SDS-961.024/1

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

1.1. Product identifier

Product form	:	Substance
Substance name	:	2-propanol
EC Index-No.	:	603-117-00-0
EC-No.	:	200-661-7
CAS-No.	:	67-63-0
Type of product	:	Pure substance
Formula	:	C_3H_8O
Chemical structure	:	

Synonyms : 1-methylethanol / 1-methylethyl alcohol / 2-hydroxypropane / 2-propanol,anhydrous / 2-propyl alcohol / AI3-01636 / alcojel / alcosolve / AVANTIN / AVANTINE / caswell No 507 / chromar (=2-propanol) / combi-schutz / CORONA WIRE CLEANER (=2-propanol) / CTL R-53 reducer / dimethyl carbinol / DISK DRIVE HEAD CLEANING KIT (=2-propanol) / ethyl carbinol / hartosol / hydroxypropane / imsol A / IPA SGL / IPA T1 / IPA USP / IPA, anhydrous / IPA-EG / isoethylcarbinol / isohol / Isopropanol (isopropyl alcohol) / isopropanol, anhydrous / isopropyl alcohol / isopropyl alcohol, anhydrous / KENCO #880-T FLUX THINNER (=2-propanol) / LENS CLENS #3 (=2-propanol) / lutosol / normal-propan-2-ol / n-propan-2-ol / perspirit / persprit / petrohol / PRO / propan-2-ol / propyl alcohol (=sec-propyl alcohol) / pseudo-propyl alcohol / secondary-propyl alcohol / sec-propanol / sec-propyl alcohol / spectrar / STCC 4904205 / sterisol hand disinfectant / takineocol / TEXPADS / visco 1152 / XEROX FILM REMOVER

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Disinfectant
Solvent
Laboratory chemical

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ISOLAB Laborgeräte GmbH
Am Dillhof 2 - 63863 Eschau / GERMANY
Tel: + 49 93 74 / 978 55-0
Fax: +49 93 74 / 978 55-29
prodsafe@isolab.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Germany	Giftnotruf der Charité CBF, Haus VIII (Wirtschaftgebäude), UG	Hindenburgdamm 30 12203 Berlin	+49 30 19240	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225

Eye Irrit. 2 H319

STOT SE 3 H336

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS02 GHS07

Signal word (CLP) : Danger

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary statements (CLP) : P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P240 - Ground/bond container and receiving equipment.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P403 + P233 Store in a well-ventilated place. Keep container tightly closed

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%
2-propanol	(CAS-No.) 67-63-0 (EC-No.) 200-661-7 (EC Index-No.) 603-117-00-0	100

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give alcohol to drink.

First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact : Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists.

First-aid measures after eye contact : Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Give activated charcoal. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Doctor: gastric lavage.

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

Symptoms/effects after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Coughing. Dry/sore throat. Central nervous system depression. Dizziness. Headache. Narcosis.

Symptoms/effects after skin contact : Dry skin.

Symptoms/effects after eye contact : Irritation of the eye tissue.

Symptoms/effects after ingestion : AFTER ABSORPTION OF HIGH QUANTITIES: Central nervous system depression. Headache. Dilation of the blood vessels. Low arterial pressure. Nausea. Vomiting. Abdominal pain. Disturbed motor response. Disturbances of consciousness. FOLLOWING SYMPTOMS MAY APPEAR LATER: Body temperature fall. Slowing respiration.

Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Dry skin. Itching. Cracking of the skin. Skin rash/inflammation. Impaired memory.

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

No additional information available

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Polyvalent foam. Alcohol-resistant foam. BC powder. Carbon dioxide.

Unsuitable extinguishing media : Solid water jet ineffective as extinguishing medium.

5.2. Special hazards arising from the substance or mixture

Fire hazard : DIRECT FIRE HAZARD. Highly flammable. Gas/vapour flammable with air within explosion limits. INDIRECT FIRE HAZARD. May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard.

Explosion hazard : DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".

5.3. Advice for firefighters

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat.

Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. See "Material-Handling" to select protective clothing.

Emergency procedures : Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Keep containers closed. Wash contaminated clothes.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapour with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.

Methods for cleaning up : Take up liquid spill into absorbent material, e.g.: dry sand/earth/vermiculite or powdered limestone. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Measure the concentration in the air regularly. Work under local exhaust/ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids. (strong) bases. amines. halogens.

Storage area	:	Store in a cool area. Store in a dry area. Ventilation at floor level. Fireproof storeroom. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. May be stored under nitrogen. Meet the legal requirements.
Special rules on packaging	:	SPECIAL REQUIREMENTS: closing. with pressure relief valve. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	:	SUITABLE MATERIAL: stainless steel. monel steel. carbon steel. copper. nickel. bronze. glass. Teflon. polyethylene. polypropylene. zinc. MATERIAL TO AVOID: steel with rubber inner lining. aluminium.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-propanol (67-63-0)		
Austria	Local name	2-Propanol Kurzzeitwert für Großguss
Austria	MAK (mg/m³)	500 mg/m³
Austria	MAK (ppm)	200 ppm
Austria	MAK Short time value (mg/m³)	2000 mg/m³
Austria	MAK Short time value (ppm)	800 ppm
Belgium	Local name	Alcool isopropylique # Isopropylalcohol
Belgium	Limit value (mg/m³)	500 mg/m³ (Alcool isopropylique; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	200 ppm (Alcool isopropylique; Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m³)	1000 mg/m³ (Alcool isopropylique; Belgium; Short time value)
Belgium	Short time value (ppm)	400 ppm (Alcool isopropylique; Belgium; Short time value)
Bulgaria	Local name	Изопропилов алкохол
Bulgaria	OEL TWA (mg/m³)	980 mg/m³
Bulgaria	OEL STEL (mg/m³)	1225 mg/m³
Croatia	Local name	Propan-2-ol; (izopropil-alkohol; izopropanol)
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	999 mg/m³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	400 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m³)	1250 mg/m³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	500 ppm
Croatia	Naznake (HR)	F (lako zapaljivo); Xi (nadražujuće)
Czech Republic	Local name	iso-Propanol
Czech Republic	Expoziční limity (PEL) (mg/m³)	500 mg/m³
Czech Republic	Expoziční limity (PEL) (ppm)	204 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m³)	1000 mg/m³
Czech Republic	Expoziční limity (NPK-P) (ppm)	410 ppm
Czech Republic	Remark (CZ)	D
Denmark	Local name	Isopropylalkohol (Isopropanol; 2-Propanol; sec-Propylalkohol)
Denmark	Grænseværdie (langvarig) (mg/m³)	490 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	200 ppm
Estonia	Local name	2-propanool (isopropüülalkohol, isopropanool)
Estonia	OEL TWA (mg/m³)	350 mg/m³
Estonia	OEL TWA (ppm)	150 ppm
Estonia	OEL STEL (mg/m³)	600 mg/m³
Estonia	OEL STEL (ppm)	250 ppm
Finland	Local name	2-Propanoli

2-propanol (67-63-0)		
Finland	HTP-arvo (8h) (mg/m³)	500 mg/m³
Finland	HTP-arvo (8h) (ppm)	200 ppm
Finland	HTP-arvo (15 min)	620 mg/m³
Finland	HTP-arvo (15 min) (ppm)	250 ppm
France	Local name	Alcool isopropylique
France	VLE (mg/m³)	980 mg/m³ (Alcool isopropylique; France; Short time value; VL: Valeur non réglementaire indicative)
France	VLE (ppm)	400 ppm (Alcool isopropylique; France; Short time value; VL: Valeur non réglementaire indicative)
France	Note (FR)	Valeurs recommandées/admises
Germany	Local name	Propan-2-ol
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	500 mg/m³
Germany	TRGS 900 Occupational exposure limit value (ppm)	200 ppm
Germany	Remark (TRGS 900)	DFG,Y
Greece	OEL TWA (mg/m³)	980 mg/m³
Greece	OEL TWA (ppm)	400 ppm
Greece	OEL STEL (mg/m³)	1225 mg/m³
Greece	OEL STEL (ppm)	500 ppm
Hungary	Local name	IZOPROPIL-ALKOHOL
Hungary	AK-érték	500 mg/m³
Hungary	CK-érték	2000 mg/m³
Hungary	Megjegyzések (HU)	b, i; II.1.
Ireland	Local name	Isopropyl alcohol
Ireland	OEL (8 hours ref) (ppm)	200 ppm
Ireland	OEL (15 min ref) (ppm)	400 ppm
Ireland	Notes (IE)	Sk
Latvia	Local name	Izopropanols (2-propanols, izopropilspirts,1-metil-1-etanols)
Latvia	OEL TWA (mg/m³)	350 mg/m³
Latvia	OEL STEL (mg/m³)	600 mg/m³
Lithuania	Local name	2-propanolis (izopropanolis, izopropilo alkoholis)
Lithuania	IPRV (mg/m³)	350 mg/m³
Lithuania	IPRV (ppm)	150 ppm
Lithuania	TPRV (mg/m³)	600 mg/m³
Lithuania	TPRV (ppm)	250 ppm
Poland	Local name	Propan-2-ol (izopropylowy alkohol)
Poland	NDS (mg/m³)	900 mg/m³
Poland	NDSCh (mg/m³)	1200 mg/m³
Portugal	Local name	2-Propanol (isopropanol ou álcool isopropílico)
Portugal	OEL TWA (ppm)	200 ppm
Portugal	OEL STEL (ppm)	400 ppm
Romania	Local name	Alcool izopropilic
Romania	OEL TWA (mg/m³)	200 mg/m³
Romania	OEL TWA (ppm)	81 ppm
Romania	OEL STEL (mg/m³)	500 mg/m³
Romania	OEL STEL (ppm)	203 ppm
Slovakia	Local name	Izopropylalkohol (propán-2-ol)
Slovakia	NPHV (priemerná) (mg/m³)	500 mg/m³
Slovakia	NPHV (priemerná) (ppm)	200 ppm
Slovakia	OEL STEL (mg/m³)	1000 mg/m³
Slovakia	OEL STEL (ppm)	400 ppm

2-propanol (67-63-0)		
Slovenia	Local name	propan-2-ol (izopropilalkohol; izopropanol)
Slovenia	OEL TWA (mg/m³)	500 mg/m³
Slovenia	OEL TWA (ppm)	200 ppm
Slovenia	OEL STEL (mg/m³)	2000 mg/m³
Slovenia	OEL STEL (ppm)	800 ppm
Spain	Local name	Isopropanol (Alcohol isopropílico)
Spain	VLA-ED (mg/m³)	500 mg/m³
Spain	VLA-ED (ppm)	200 ppm
Spain	VLA-EC (mg/m³)	1000 mg/m³
Spain	VLA-EC (ppm)	400 ppm
Spain	Notes	VLB® (Agente químico que tiene Valor Límite Biológico específico en este documento), s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para una información detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas Base de datos de productos fitosanitarios http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf).
Sweden	Local name	Isopropanol
Sweden	nivågränsvärde (NVG) (mg/m³)	350 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	150 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	600 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	250 ppm
Sweden	Anmärkning (SE)	V (Vägledande korttidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas)
United Kingdom	Local name	Propan-2-ol
United Kingdom	WEL TWA (mg/m³)	999 mg/m³ Propan-2-ol; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	400 ppm Propan-2-ol; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m³)	1250 mg/m³ Propan-2-ol; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	500 ppm Propan-2-ol; United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
Russian Federation	Local name	Пропан-2-ол
Russian Federation	OEL Ceiling (mg/m³)	50 mg/m³
Russian Federation	OEL TWA (mg/m³)	10 mg/m³
Russian Federation	Remark (RU)	3 класс опасности - опасное; п (пары и/или газы)
Norway	Local name	2-propanol (Isopropanol)
Norway	Grenseverdier (AN) (mg/m³)	245 mg/m³
Norway	Grenseverdier (AN) (ppm)	100 ppm
Switzerland	Local name	Isopropanol (s. 2-Propanol)
Switzerland	VME (mg/m³)	500 mg/m³ 500 mg/m³ 500 mg/m³ 500 mg/m³
Switzerland	VME (ppm)	200 ppm 200 ppm 200 ppm 200 ppm

2-propanol (67-63-0)		
Switzerland	VLE (mg/m³)	1000 mg/m³ 1000 mg/m³ 1000 mg/m³ 1000 mg/m³
Switzerland	VLE (ppm)	400 ppm 400 ppm 400 ppm 400 ppm
Switzerland	Remark (CH)	B SS_C - Auge & OAW, ZNS, Leber$^{KT\ AN}$ - INRS, NIOSH
Australia	Local name	Isopropyl alcohol
Australia	TWA (mg/m³)	983 mg/m³ Synonym (Propan-2-ol)
Australia	TWA (ppm)	400 ppm Synonym (Propan-2-ol)
Australia	STEL (mg/m³)	1230 mg/m³ Synonym (Propan-2-ol)
Australia	STEL (ppm)	500 ppm Synonym (Propan-2-ol)
USA - ACGIH	Local name	2-Propanol
USA - ACGIH	ACGIH TWA (ppm)	200 ppm (2-propanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA - ACGIH	ACGIH STEL (ppm)	400 ppm (2-propanol; USA; Short time value; TLV - Adopted Value)
USA - ACGIH	Remark (ACGIH)	Eye & URT irr; CNS impair
USA - OSHA	Local name	Isopropyl alcohol
USA - OSHA	OSHA PEL (TWA) (mg/m³)	980 mg/m³
USA - OSHA	OSHA PEL (TWA) (ppm)	400 ppm

8.2. Exposure controls

Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: butyl rubber. nitrile rubber. viton. polyethylene/ethylenevinylalcohol. GIVE GOOD RESISTANCE: neoprene. GIVE LESS RESISTANCE: PVC. neoprene/natural rubber. GIVE POOR RESISTANCE: natural rubber. polyethylene. PVA

Hand protection:

Gloves

Eye protection:

Safety glasses

Skin and body protection:

Protective clothing

Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit

Device	Filter type	Condition	Standard
Gas mask	Type A - High-boiling (>65 °C) organic compounds	If conc. in air > exposure limit	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Liquid.
Molecular mass : 60.1 g/mol
Colour : Colourless.
Odour : Alcohol odour. Stuffy odour. Mild odour.

Odour threshold	:	3 - 610 ppm 8 - 1499 mg/m³
pH	:	Neutral at 20 °C
Relative evaporation rate (butylacetate=1)	:	2.3
Relative evaporation rate (ether=1)	:	21
Melting point	:	-89.5 °C
Freezing point	:	No data available
Boiling point	:	82 °C (1013 hPa)
Flash point	:	12 °C
Critical temperature	:	235 °C
Auto-ignition temperature	:	399 °C
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	43 hPa (20 °C)
Critical pressure	:	47600 hPa
Relative vapour density at 20 °C	:	2.1
Relative density	:	0.79
Relative density of saturated gas/air mixture	:	1.05
Density	:	786 kg/m³ (20 °C)
Solubility	:	Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in oils/fats. Soluble in chloroform. Water: Complete Ethanol: Complete Ether: Complete Acetone: soluble
Log Pow	:	0.05 (Weight of evidence approach; Other; 25 °C)
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	0.002 Pa.s (25 °C)
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	2 – 13.4 vol %

9.2. Other information

Minimum ignition energy	:	0.65 mJ
Specific conductivity	:	5.8 µS/m
Saturation concentration	:	106 g/m³
VOC content	:	100 %
Other properties	:	Gas/vapour heavier than air at 20°C. Clear. Volatile.

SECTION 10: Stability and reactivity

10.1. Reactivity

Upon combustion: CO and CO2 are formed. Violent to explosive reaction with (strong) oxidizers. Prolonged storage/in large quantities: may form peroxides.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

2-propanol (67-63-0)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	12800 mg/kg

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

IARC group : 3

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified as dangerous for the environment according to the criteria of Directive 67/548/EEC. Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006). TA-Luft Klasse 5.2.5.

Ecology - water : Ground water pollutant. Not harmful to fishes (LC50(96h) >1000 mg/l). Not harmful to invertebrates (Daphnia). Not harmful to algae (EC50 (72h) >1000 mg/l). Inhibition of activated sludge.

2-propanol (67-63-0)	
LC50 fish 2	9640 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 2	13299 mg/l (EC50; Other; 48 h; Daphnia magna)
Threshold limit algae 1	> 1000 mg/l (EC50; UBA; 72 h; Scenedesmus subspicatus)

12.2. Persistence and degradability

2-propanol (67-63-0)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.19 g O_2/g substance
Chemical oxygen demand (COD)	2.23 g O_2/g substance
ThOD	2.4 g O_2/g substance

12.3. Bioaccumulative potential

2-propanol (67-63-0)	
Log Pow	0.05 (Weight of evidence approach; Other; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

2-propanol (67-63-0)	
Surface tension	0.021 N/m (25 °C)

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Do not discharge into surface water. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Additional information : LWCA (the Netherlands): KGA category 03. Hazardous waste according to Directive 2008/98/EC.

European List of Waste (LoW) code : 07 01 04* - other organic solvents, washing liquids and mother liquors

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1219	1219	1219	1219	1219
14.2. UN proper shipping name				
ISOPROPANOL (ISOPROPYL ALCOHOL)	ISOPROPANOL (ISOPROPYL ALCOHOL)	Isopropanol	ISOPROPANOL (ISOPROPYL ALCOHOL)	ISOPROPANOL (ISOPROPYL ALCOHOL)
Transport document description				
UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II, (D/E)	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II (12°C c.c.)	UN 1219 Isopropanol, 3, II	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II	UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), 3, II
14.3. Transport hazard class(es)				
3	3	3	3	3
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : F1

Special provisions (ADR) : 601

Limited quantities (ADR) : 1l

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02, R001

Mixed packing provisions (ADR) : MP19

Portable tank and bulk container instructions (ADR) : T4

Portable tank and bulk container special provisions (ADR) : TP1

Tank code (ADR) : LGBF

Vehicle for tank carriage : FL

Transport category (ADR) : 2

Special provisions for carriage - Operation (ADR) : S2, S20

Hazard identification number (Kemler No.) : 33

Orange plates	:	
Tunnel restriction code (ADR)	:	D/E

- Transport by sea

Transport regulations (IMDG)	:	Subject
Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-D
Stowage category (IMDG)	:	B
Flash point (IMDG)	:	12°C c.c.
Properties and observations (IMDG)	:	Colourless, mobile liquid. Flashpoint: 12°C c.c. Explosive limits: 2% to 12% Miscible with water.
MFAG-No	:	129

- Air transport

Transport regulations (IATA)	:	Subject to the provisions
PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y341
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	353
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	364
CAO max net quantity (IATA)	:	60L
Special provisions (IATA)	:	A180
ERG code (IATA)	:	3L

- Inland waterway transport

Classification code (ADN)	:	F1
Special provisions (ADN)	:	601
Limited quantities (ADN)	:	1 L
Excepted quantities (ADN)	:	E2
Carriage permitted (ADN)	:	T
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	VE01
Number of blue cones/lights (ADN)	:	1

- Rail transport

Transport regulations (RID)	:	Subject
Classification code (RID)	:	F1
Special provisions (RID)	:	601
Limited quantities (RID)	:	1L
Excepted quantities (RID)	:	E2
Packing instructions (RID)	:	P001, IBC02, R001
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special provisions (RID)	:	TP1
Tank codes for RID tanks (RID)	:	LGBF
Transport category (RID)	:	2

Colis express (express parcels) (RID)	:	CE7
Hazard identification number (RID)	:	33

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

2-propanol is not on the REACH Candidate List

2-propanol is not on the REACH Annex XIV List

VOC content	:	100 %

15.1.2. National regulations

Germany

VwVwS Annex reference	:	Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 1 or 2; ID No. 135)
WGK remark	:	Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	:	Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen	:	The substance is not listed
SZW-lijst van mutagene stoffen	:	The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	:	The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	:	The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	:	The substance is not listed

Denmark

Class for fire hazard	:	Class I-1
Store unit	:	1 liter
Classification remarks	:	F <Flam. Liq. 2>; Emergency management guidelines for the storage of flammable liquids must be followed
Recommendations Danish Regulation	:	Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

Data sources : 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

SDS ISOLAB

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product