

## ISOPROPYL ALCOHOL

Version: 3.00

Revision Date 2003/02/08

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

Trade name	ISOPROPYL ALCOHOL
Use	industrial use, Solvents, process control substance, raw material for cleaning agents and disinfectants, raw material for photochemicals
Company	SASOL Germany GmbH Chemische Produkte Lösemittel Anckelmannsplatz 1 20537 Hamburg
Information (Product safety):	+ 49 (0) 23 65 - 49 47 05    Fax: + 49 (0) 23 65 - 49 92 40
Emergency telephone number	+ 49 (0) 28 41 - 49 24 08

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

propan-2-ol; isopropyl alcohol; isopropanol

content: &gt;= 99.90 %

CAS-No.: 67-63-0

Symbol(s): F, Xi

Index-No.: 603-117-00-0

R-phrases: -R11 -R36 -R67

EG-Nr.: 200-661-7

For the full text of the R phrases mentioned in this Section, see Section 16.

## 3. HAZARDS IDENTIFICATION

## Identification of the risks

Highly flammable.

Irritating to eyes.

Vapours may cause drowsiness and dizziness.

## 4. FIRST AID MEASURES

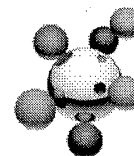
General advice	Take off contaminated clothing and shoes immediately.
Inhalation	Move to fresh air.
Skin contact	Wash off with plenty of water.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Ingestion	Drink plenty of water. Do not induce vomiting. Obtain medical attention.

## 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	water spray, alcohol-resistant foam, carbon dioxide (CO <sub>2</sub> ), dry powder
Extinguishing media which must not be used for safety reasons	high volume water jet
Further information	Water mist may be used to cool closed containers.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Ensure adequate ventilation. Keep away from sources of ignition - No smoking.
Environmental precautions	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.
Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

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**7. HANDLING AND STORAGE****HANDLING****Safe handling advice**

Ensure adequate ventilation. Vapours are heavier than air and may spread along floors.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking. Vapours may form explosive mixtures with air. Do not allow to enter drains (danger of explosion). Take precautionary measures against static discharges.

**STORAGE****Requirements for storage areas and containers**

Keep container tightly closed. Keep in a well-ventilated place.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****COMPONENTS WITH WORKPLACE CONTROL PARAMETERS**

Components	CAS-No.	Typ	Control parameters	Update	Basis
propan-2-ol; isopropyl alcohol; isopropanol	67-63-0	TWA	983 mg/m <sup>3</sup>	2001	ACGIH
		TWA	400 ppm	2001	ACGIH
		STEL	1,230 mg/m <sup>3</sup>	2001	ACGIH
		STEL	500 ppm	2001	ACGIH
		TWA	200 ppm	2000	ACGIH NIC
		STEL	400 ppm	2000	ACGIH NIC
		REL	980 mg/m <sup>3</sup>	06 1997	NIOSH
		REL	400 ppm	06 1997	NIOSH
		STEL	1,225 mg/m <sup>3</sup>	06 1997	NIOSH
		STEL	500 ppm	06 1997	NIOSH
		PEL*	980 mg/m <sup>3</sup>	06 1993	OSHA Z1
		PEL	400 ppm	06 1993	OSHA Z1
		TWA	980 mg/m <sup>3</sup>	1989	OSHA Z1A
		TWA	400 ppm	1989	OSHA Z1A
		STEL	1,225 mg/m <sup>3</sup>	1989	OSHA Z1A
		STEL	500 ppm	1989	OSHA Z1A
		TWA PEL	980 mg/m <sup>3</sup>	11 1997	US CA OEL
		TWA PEL	400 ppm	11 1997	US CA OEL
		STEL	1,225 mg/m <sup>3</sup>	11 1997	US CA OEL
		STEL	500 ppm	11 1997	US CA OEL
Propan-2-ol	67-63-0	MAK	500 mg/m <sup>3</sup>	09 2001	TRGS 900
		MAK	200 ppm	09 2001	TRGS 900

**PERSONAL PROTECTIVE EQUIPMENT****Respiratory protection**

In case of insufficient ventilation wear suitable respiratory equipment.

**Hand protection****gloves suitable for permanent contact:**

Material: Nitrile rubber/nitrile latex  
 Break through time: >= 480 min  
 Material thickness: 0.35 mm

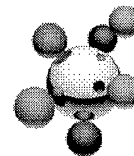
Material: butyl-rubber  
 Break through time: >= 480 min  
 Material thickness: 0.5 mm

**gloves suitable for splash protection:**

Material: Polychloroprene  
 Break through time: >= 240 min  
 Material thickness: 0.5 mm

**unsuitable gloves**

Material: Natural rubber/natural latex, polyvinylchloride



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Eye protection	tightly fitting safety goggles
Hygiene measures	Take off all contaminated clothing immediately.
Protective measures	Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	liquid
Colour	colourless
Odour	alcoholic
pH	not applicable
Boiling point/range	82.0 - 83.0 °C; 1,013 hPa; DIN 53171
Flash point	13 °C; DIN 51755 Part 1
Ignition temperature	425 °C
Lower explosion limit	2 %(V)
Upper explosion limit	12 %(V)
Vapour pressure	42 hPa; 20 °C
Density	0.784 - 0.786 g/cm <sup>3</sup> ; 20 °C; DIN 51757
Solubility/qualitative	miscible with most organic solvents
Water solubility	completely miscible
Viscosity, dynamic	2.5 mPa.s; 20 °C

## 10. STABILITY AND REACTIVITY

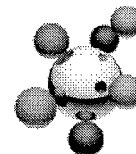
Thermal decomposition	No decomposition if used as directed.
Hazardous reactions	Vapours may form explosive mixture with air.

## 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	propan-2-ol; isopropyl alcohol; isopropanol: LD50 rat: > 2,000 mg/kg; (literature value)
Acute dermal toxicity	propan-2-ol; isopropyl alcohol; isopropanol: LD50 rabbit: > 2,000 mg/kg; (literature value)
Skin irritation	propan-2-ol; isopropyl alcohol; isopropanol: rabbit: not irritating; (literature value)
Eye irritation	propan-2-ol; isopropyl alcohol; isopropanol: rabbit: irritating; (literature value)
Sensitization	propan-2-ol; isopropyl alcohol; isopropanol: Buehler Test guinea pig: not sensitizing; (literature value)
Genotoxicity in vitro	propan-2-ol; isopropyl alcohol; isopropanol: Ames test: not mutagenic; (literature value)

## 12. ECOLOGICAL INFORMATION

Biodegradability	propan-2-ol; isopropyl alcohol; isopropanol: Readily biodegradable; > 70 %; 10 d; (literature value)
ECOTOXICITY EFFECTS	
Toxicity to fish	propan-2-ol; isopropyl alcohol; isopropanol: LC50 Leuciscus idus melanotus: > 100 mg/l; 48 h; (literature value)
Toxicity to daphnia	propan-2-ol; isopropyl alcohol; isopropanol: EC50 Daphnia magna: > 100 mg/l; 48 h; (literature value)



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## Toxicity to algae

propan-2-ol; isopropyl alcohol; isopropanol:  
EC50 Scenedesmus subspicatus: > 100 mg/l; 72 h; (literature value)

## 13. DISPOSAL CONSIDERATIONS

Product	Following pre-treatment and observing the regulations for hazardous wastes, it must be taken to a permitted hazardous wastes landfill or hazardous wastes incinerator.
Contaminated packaging	Can be used after re-conditioning.
waste code of the European Union: EWC	A waste code in accordance with the European Waste Catalogue (EWC) may not be assigned to this product since it admits of a classification only when the consumer uses it for some purpose.

## 14. TRANSPORT INFORMATION

ADR	UN-No: 1219; Class: 3; Packaging group: II; F1; Description of the goods: ISOPROPANOL
RID	UN-No: 1219; Class: 3; Packaging group: II; F1; Description of the goods: ISOPROPANOL
ADNR	UN-No: 1219; Class: 3; Packaging group: II; Description of the goods: Isopropanol
IMDG	UN-No: 1219; Class: 3; EmS: 3-06; Packaging group: II; Description of the goods: ISOPROPANOL
ICAO/IATA	UN-No: 1219; Class: 3; Packaging group: II; Description of the goods: Isopropanol

## 15. REGULATORY INFORMATION

## LABELLING

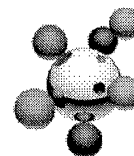
labelling according to EEC Directive	According to Annex I of Dir. 67/548 EEC
Symbol(s):	F: Highly flammable Xi: Irritant
R-phrases(s)	R11: Highly flammable. R36: Irritating to eyes. R67: Vapours may cause drowsiness and dizziness.
S-phrases(s)	S 7: Keep container tightly closed. S16: Keep away from sources of ignition. - No smoking. S24/25: Avoid contact with skin and eyes. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Additional advice	EC Label
Hazardous components which must be listed on the label	PROPAN-2-OL; ISOPROPYL ALCOHOL; ISOPROPANOL

## NATIONAL LEGISLATION

Occupational restrictions	Employment restrictions for children and young workers in accordance with Directive 94/33/EC and the respective national provisions are to be observed.
VOC	The question whether this product or components thereof has/have to be considered as volatile organic compound/compounds (VOC) as defined by Directive 1999/13/EU can only be answered when detailed knowledge on the use as solvent in connection with certain activities in certain facilities is available.

## 16. OTHER INFORMATION

Text of R phrases mentioned in Section 2



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R11	Highly flammable.
R36	Irritating to eyes.
R67	Vapours may cause drowsiness and dizziness.

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.

II Indicates updated section.