



Isopropyl Alcohol

Version 1.01

Revision Date 26.09.2007

Material Safety Data Sheet

SECTION 1 Identification of the substance/preparation and of the company/undertaking

Trade name Isopropyl Alcohol
Synonyms Isopropyl Alcohol, Dimethyl carbinol, Isopropanol
Company Sasol Chemicals North America LCC
900 Threadneedle, Suite 100
Houston, Texas 77079-2990 USA

Telephone CHEMTREC North America Transport Emergency (24-hr) (800) 424-9300
CHEMTREC World Wide Transport Emergency (24-hr) (703) 527-3887
MSDS and Product Information (8:00am-4:30pm CST) (281) 588-3315
Sasol LCCC Main Gate Guard (337) 494-5142

SECTION 2 Hazards identification

Emergency Overview

Danger Highly flammable.
State of matter liquid colourless
Odour aromatic

Potential environmental effects

Environmental precautions Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

Ecological information: See chapter 12

Potential health effects

Acute effects

Eyes Causes eye irritation.
Skin Prolonged or repeated contact may dry skin and cause irritation.

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Inhalation May cause respiratory tract irritation.

Ingestion Aspiration hazard if swallowed - can enter lungs and cause damage.

Toxicological information: See chapter 11

SECTION 3 Composition/information on ingredients

Components

propan-2-ol; isopropyl alcohol; isopropanol

CAS-No.

67-63-0

Weight %

100.00

Exposure limit(s): See chapter 8

Classification and hazard labelling: See chapter 15

SECTION 4 First aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before re-use. If skin irritation persists, call a physician.

Inhalation Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.

Ingestion If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

SECTION 5 Fire-fighting measures

Flammability

Flash point 12 °C closed cup 18 °C open cup

Autoignition temperature 398.89 °C

Explosion limits Lower explosion limit: 2 % (V)
Upper explosion limit: 12 % (V)

Fire/explosion Flash back possible over considerable distance.



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Hazardous combustion products	Carbon oxides
Suitable extinguishing media	Water spray Alcohol-resistant foam Dry chemical Carbon dioxide (CO ₂)
Unsuitable extinguishing media	No information available.
Protection measures and instructions	Wear self-contained breathing apparatus and protective suit.
Further information	Cool containers / tanks with water spray.

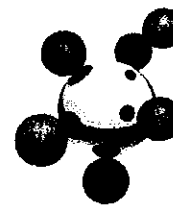
SECTION 6 Accidental release measures

Personal precautions	Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapours or spray mist.
Environmental precautions	Should not be released into the environment. Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Soak up with inert absorbent material and dispose of as hazardous waste.

Exposure controls / personal protection: See chapter 8

SECTION 7 Handling and storage

Safe handling advice	Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Take precautionary measures against static discharge. Ensure all equipment is electrically grounded before beginning transfer operations.
Advice on protection against fire and explosion	Keep away from heat and sources of ignition. Use explosion-proof equipment.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place.



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SECTION 8 Exposure controls / personal protection

Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.

Personal protective equipment

Eyes Safety glasses with side-shields

Skin Protective suit Safety shoes

Inhalation In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

Hygiene measures Wash hands before breaks and immediately after handling the product.

Protective measures Wear suitable protective equipment.

Exposure Guidelines

<u>Components</u>	<u>Exposure limit(s)</u>
ISOPROPYL ALCOHOL	US. ACGIH Threshold Limit Values time weighted average 200 ppm
	US. ACGIH Threshold Limit Values Short term exposure limit 400 ppm
	US. NIOSH: Pocket Guide to Chemical Hazards Recommended exposure limit (REL): 400 ppm (980 mg/m ³)
	US. NIOSH: Pocket Guide to Chemical Hazards Short term exposure limit 500 ppm (1,225 mg/m ³)
	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Permissible exposure limit 400 ppm (980 mg/m ³)
	US. OSHA Table Z-1-A (29 CFR 1910.1000) time weighted average 400 ppm (980 mg/m ³)
	US. OSHA Table Z-1-A (29 CFR 1910.1000) Short term exposure limit 500 ppm (1,225 mg/m ³)
	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants Time Weighted Average (TWA) Permissible Exposure Limit (PEL): 400 ppm (980 mg/m ³)
	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants Short term exposure limit 500 ppm (1,225 mg/m ³)

PEL= Permissible Exposure Limits
TLV= Threshold Limit Value
EL= Excursion Limit

TWA= Time Weighted Average (8 hr.)
STEL= Short Term Exposure Limit (15 min.)
WEEL= Workplace Environmental Exposure Level



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SECTION 9 Physical and chemical properties

State of matter	liquid
Colour	colourless
Odour	aromatic
Form	liquid
Boiling point/boiling range	82.22 °C
Flash point	12 °C closed cup 18 °C open cup
Lower explosion limit	2 %(V)
Upper explosion limit	12 %(V)
Vapour pressure	43.996 hPa at 20 °C
Solubility	completely soluble
Viscosity	0.1 mm ² /s
Viscosity, dynamic	2.4 mPa.s
Melting point/range	-88.5 °C
Density	0.785 g/cm ³
pH	7

SECTION 10 Stability and reactivity

Conditions to avoid	Heat, flames and sparks.
Hazardous decomposition products	Carbon oxides
Incompatible products	Strong oxidizing agents Incompatible with acids. Halogenated compounds



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Hazardous reactions Hazardous polymerisation does not occur.

SECTION 11 Toxicological information

Acute oral toxicity LD50 rat: 5,045 mg/kg; literature value

LD50 rabbit: 6,410 mg/kg; literature value

Acute inhalation toxicity LC50 rat: 16,000 mg/l; ; 8 h; literature value

Acute dermal toxicity LD50 rabbit: 12,800 mg/kg; literature value

Skin irritation rabbit: Mild skin irritation; literature value

Eye irritation rabbit: Moderate eye irritation; literature value; Causes eye irritation.

SECTION 12 Ecological information

Biodegradability Readily biodegradable.

Ecotoxicity effects

Toxicity to fish LC50 Pimephales promelas: > 6,000 mg/l; 96 h; (literature value)

SECTION 13 Disposal considerations

Waste Classification US: EPA Resource Conservation and Recovery Act: (RCRA) D List of Characteristic Hazardous Wastes (40 CFR 261.21-24): D001

Waste from residues / unused products In accordance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil.

Uncleaned empty packaging Do not burn, or use a cutting torch on, the empty drum., Triple rinse containers., Can be offered for recycling, re-conditioning or puncture.

Handling and storage: See chapter 7

Exposure controls / personal protection: See chapter 8



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SECTION 14 Transport information

DOT/49CFR UN 1219 Isopropanol, 3, II
 ADR UN 1219 Isopropanol, 3, II
 RID UN 1219 ISOPROPANOL, 3, II
 ADNR UN 1219 ISOPROPANOL, 3, II
 IMDG UN 1219 ISOPROPANOL, 3, II; EmS F-E, S-D
 ICAO/IATA UN 1219 Isopropanol, 3, II

SECTION 15 Regulatory information

U.S. Federal Classifications:

OSHA Hazards Flammable Liquid, Mild eye irritant

SARA 311/312 Fire Hazard, Acute Health Hazard

U.S. Regulated Ingredients:

Hazard information reporting

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

Components

Propan-2-ol

CAS-No.

67-63-0

US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

Components

Propan-2-ol

CAS-No.

67-63-0

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

Components

Propan-2-ol

CAS-No.

67-63-0

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Components

Propan-2-ol

CAS-No.

67-63-0

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

CAS-No.

Health

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

Components

Not listed

CAS-No.



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Inventories

EU list of existing chemical substances	All chemical constituents are listed in: EU list of existing chemical substances (See chapter 3)
US TSCA Inventory	All chemical constituents are listed in: US TSCA Inventory (See chapter 3)
Australian Inv. of Chem. Substances AICS	All chemical constituents are listed in: Australian Inv. of Chem. Substances AICS (See chapter 3)
Canadian Domestic Substances List DSL	All chemical constituents are listed in: Canadian Domestic Substances List DSL (See chapter 3)
Jap. Inv. of Exist. & New Chemicals ENCS	All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals ENCS (See chapter 3)
Korean Exist. Chemicals List ECL	All chemical constituents are listed in: Korean Exist. Chemicals List ECL (See chapter 3)
Philippines Inv. of Chem. Subst. PICCS	All chemical constituents are listed in: Philippines Inv. of Chem. Subst. PICCS (See chapter 3)
Inv. of Exist. Chem. Substances in China	All chemical constituents are listed in: Inv. of Exist. Chem. Substances in China (See chapter 3)

Other international regulations

WHMIS Classification B2: Flammable Liquid
D2B: Toxic Material Causing Other Toxic Effects

SECTION 16 Other information

Hazard Ratings

	<u>Health</u>	<u>Flammability</u>	<u>Reactivity Hazard</u>
HMIS	1	3	0
NFPA	1	3	0

All reasonable efforts were exercised to compile this MSDS in accordance with ISO 11014 and ANSIZ400.1.1993. The MSDS provides information regarding the health, safety and environmental hazards, at the date of issue, to facilitate the safe receipt, use and handling of the product in the workplace. Since Sasol and its subsidiaries cannot anticipate or control all conditions under which the product may be handled, used and received in the workplace, it remains the obligation of each user, receiver or handler to, prior to usage, review this MSDS in the context within which the product will be received, handled or used in the workplace. The user, handler or receiver must ensure that the necessary mitigating measures are in place as regards health and safety. This does not substitute the need or requirement for any relevant risk assessments to be conducted. It further remains the responsibility of the receiver, handler or user to communicate such information to all relevant parties that may be involved in the receipt, use or handling of the product. Although all reasonable efforts were



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exercised in the compilation of this MSDS, Sasol does not expressly warrant the accuracy or assume any liability for the incompleteness of the information contained herein or any advice given. The product is sold and risk passes in accordance with the specific terms and conditions of sale.

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