

Revision date: 16 June 2015

Version: 05

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

1.1. Product identifier

Trade name/designation:	70% Isopropanol
Product No.:	BDH2014, BDH2030
Other means of identification:	2-Propanol solution, IPA

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

Relevant identified uses: For laboratory and manufacturing use only

1.3. Details of the supplier of the safety data sheet

Company: VWR International, LLC
Radnor Corporate Center
100 Mastonsford Road
Radnor, PA 19087-8660

Telephone: 610.386.1700

1.4. Emergency Telephone number

CHEMTREC 800.424.9300
CANUTEC 613.996.6666

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

For the full text of the H-Statement(s) and R-phrase(s) mentioned in this Section, see Section 16.

Hazard statements	Hazard classes and categories
H225	Flammable liquids (Category 2)
H319	Eye irritation (Category 2A)
H336	Specific target organ toxicity, single exposure (Category 3)

2.2. GHS Label elements, including precautionary statements

Pictograms:



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 sources of ignition. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors, or in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower
P304 + P340 + P312	IF INHALED: Remove victim to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313	IF eye irritation persists: Get medical advice/attention
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
P403 + P233	Store in a well-ventilated place. Keep container tightly closed
P403 + P235	Store in a well-ventilated place. Keep cool
P405	Store locked up
P501	Dispose of contents/container in accordance with local, state, and federal regulations.

2.3. WHMIS Classification:

B2	Flammable Liquid
D2B	Toxic (Skin Irritant)

2.4. Hazards not otherwise classified (HNOC) or not covered by GHS or WHMIS: None

SECTION 3: Composition/information on ingredients

3.1. Hazardous Components

Chemical name	Formula	Molecular weight	CAS#	Weight%
Isopropanol	C ₃ H ₈ O	60.10 g/mol	67-63-0	68-72
Water	H ₂ O	18.02 g/mol	7732-18-5	28-32

SECTION 4: First aid measures

4.1 General information

In case of inhalation: In case of accident by inhalation: remove personnel to fresh air and keep at rest.

In case of skin contact: After contact with skin, wash immediately with plenty of water.

In case of eye contact: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice, if necessary.

In case of ingestion: If swallowed, do not induce vomiting; seek medical advice immediately.

4.2. Most important symptoms and effects, both acute and delayed: Burning sensation in eyes, temporary reddening of skin with potential dryness and cracking, Headache, dazed feeling, vomiting, nausea with skin absorption/inhalation

4.3. Indication of any immediate medical attention and special treatment needed: No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture: No data available

5.3. Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

5.4. Hazardous combustion products: No data available

5.5. Advice for firefighters: Wear self contained breathing apparatus for firefighting if necessary.

5.6. Additional information: No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures: Remove all sources of ignition Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. See Section 12 for additional Ecological Information.

6.2. Environmental precautions: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains Do not flush into surface water or sanitary sewer system

6.3. Methods and material for containment and cleaning up: Flush area with large quantity of water. Collect onto absorbent material.

6.4. Additional information: For disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling: Ensure adequate ventilation Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flameproof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapors or spray mist

7.2. Conditions for safe storage, including any incompatibilities: Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Containers must be stored in an upright position.

7.3. Specific end use(s): No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

United States			
Chemical Name	Limit value type & Country of Origin	Exposure Limit value	Source
Isopropanol	TWA-U.S.	200ppm	ACGIH (TLV)
	STEL-U.S.	400ppm	ACGIH (TLV)
	TWA-U.S.	400ppm; 980 mg/m ³	NIOSH
Canada			
Chemical Name	Limit value type & Country of Origin	Exposure Limit value	Source
Isopropanol	TWA-Canada	200ppm	Canada-OEL
	STEL-Canada	400ppm	Canada-OEL
	TWA-Canada	400ppm; 980 mg/m ³	Canada-OEL

8.2. Exposure controls

Appropriate engineering controls: Ensure adequate ventilation, especially in confined areas.

Personal protection equipment

Eye/face protection: Tightly fitting safety goggles

Skin protection: Protective gloves and antistatic boots. Wear fire/ flame resistant/retardant clothing impervious gloves. Long-sleeved clothing apron.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn

Hygiene measures: When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

- Appearance: ~~—~~ ;
Physical state: Liquid
Color: Colorless
- Odor: mild, alcohol-like
- Odor Threshold: 200 ppm
- pH: No data available
- Melting point/freezing point: No data available/-90°C
Initial boiling point: 82°C
- boiling range: No data available
- Flash point: 18.3°C
- Evaporation rate: No data available
- Flammability (solid, gas): No data available
- Upper/lower flammability: 12.7% (V)/2% (V)

- explosive limits: No data available
- k) Vapor pressure: 32.4mmHg
 - l) Vapor density: 2.0
 - m) Relative density: 0.79gm/mL
 - n) Solubilities: Miscible in all proportions
 - o) Partition coefficient (n-Octanol/Water): log P_{ow}: 0.05
 - p) Auto-ignition temperature: 399°C
 - q) Decomposition temperature: No data available
 - r) Viscosity: No data available
 - s) Explosive properties: No data available
 - t) Oxidizing properties: No data available

9.2. Other information: No data available

SECTION 10: Stability and Reactivity

10.1. Reactivity: No dangerous reaction known under conditions of normal use.

10.2. Chemical stability: Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions: Vapors may form explosive mixtures with air.

10.4. Conditions to avoid: Excessive heat & temperatures

10.5. Incompatible materials: Strong oxidizing agents, strong acids & bases.

10.6. Hazardous decomposition products: Fire or mixing with incompatible materials may produce oxides of carbon and other toxic or irritating fumes.

SECTION 11: Toxicology

11.1. Information on toxicological effects

Acute toxicity

Oral LD₅₀: 5800 mg/kg (Rat)

Inhalation LC₅₀: >10,000mg/L (6h, Rat)

Dermal LD₅₀: 12,800 mg/kg (Rabbit)

Other information on acute toxicity: No data available

Skin corrosion/irritation: May cause irritation.

Serious eye damage/eye irritation: Can cause eye irritation.

Respiratory or skin sensitization: no data available.

Germ cell mutagenicity: In vivo tests did not show mutagenic effects

Carcinogenicity:

IARC: No data available

NTP: No data available

OSHA: No data available

Reproductive toxicity: No data available

Specific target organ toxicity-single exposure: No data available

Specific target organ toxicity-repeated exposure: No data available

Aspiration hazard: No data available

Additional information: No data available

SECTION 12: Ecological information

12.1. Ecotoxicity: No data available

12.2. Persistence and degradability: No data available

12.3. Bioaccumulative potential: No data available

12.4. Mobility in soil: No data available

12.5. Results of PBT and vPvB assessment: No data available

12.6. Other adverse effects: No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods:

Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of as unused product.

SECTION 14: Transport information

Land Transport DOT (U.S.)

UN Number: 1219

Proper Shipping name: Isopropanol

Transport Hazard Classes

Class: 3
Hazard Label(s): Flammable 3
Packing Group: II
Environmental hazard(s): Marine Pollutant: No
Special precautions for user: None Especially Mentioned

Sea Transport IMDG

UN Number: 1219
Proper Shipping name: Isopropanol
Transport Hazard Classes
Class: 3
Hazard Label(s): Flammable 3
Packing Group: II
Environmental hazard(s): Marine Pollutant: No
Segregation Group: EMS No.: F-E, S-D
Special precautions for user: None Especially Mentioned

Transportation of Dangerous Goods (TDG)

UN Number: 1219
Proper Shipping name: Isopropanol
Transport Hazard Classes
Class: 3
Hazard Label(s): Flammable 3
Packing Group: II
Environmental hazard(s): Marine Pollutant: No
Special precautions for user: None Especially Mentioned

Air Transport IATA

UN Number: 1219
Proper Shipping name: Isopropanol
Transport Hazard Classes
Class: 3
Hazard Label(s): Flammable 3
Packing Group: II
Environmental hazard(s): Marine Pollutant: No
Special precautions for user: None Especially Mentioned

SECTION 15: Regulatory information

WHMIS Classification: Flammable, toxic

OSHA Hazards: Flammable, eye irritant

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

SARA 313 (TRI reporting):

Chemical name	CAS#	Revision Date
Isopropanol	67-63-0	01 Jan 1987

SARA 311/312 Hazardous Chemicals: Fire hazard, Acute health hazard, Chronic Health Hazard

Massachusetts Right-To-Know Substance List: No chemicals reported

Chemical name	CAS#	Revision Date
Isopropanol	67-63-0	01 Jan 1987

Pennsylvania Right-To-Know Hazardous substances: No chemicals reported

Chemical name	CAS#	Revision Date
Isopropanol	67-63-0	01 Jan 1987
Water	7732-18-5	N/A

New Jersey Worker and Community Right-To-Know Components: No chemicals reported

Chemical name	CAS#	Revision Date
Isopropanol	67-63-0	01 Jan 1987
Water	7732-18-5	N/A

California Proposition 65: This product contains chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

SECTION 16: Other information

Full text of H-Statement(s) and P-phrases(s):

- H225 Highly flammable liquid and vapor
- H319 Causes serious eye irritation
- H336 May cause drowsiness or dizziness
- P210 Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. No smoking.
- P233 Keep container tightly closed.
- P240 Ground/bond container and receiving equipment
- P241 Use explosion-proof electrical/ventilating/lighting equipment.
- P242 Use only non-sparking tools
- P243 Take precautionary measures against static discharge
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 Wash skin thoroughly after handling.
- P271 Use only outdoors, or in a well-ventilated area.
- P280 Wear protective gloves/eye protection/face protection.
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower
- P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P337 + P313 IF eye irritation persists: Get medical advice/attention
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed
- P403 + P235 Store in a well-ventilated place. Keep cool
- P405 Store locked up
- P501 Dispose of contents/container in accordance with local, state, and federal regulations.

HMIS Rating:

Health: 2

Flammability: 3

Physical Hazard: 0

Reactivity: 0

NFPA Rating:

Health: 2

Flammability: 3

Reactivity: 0

Special Hazard: N/A

DISCLAIMER

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International, LLC and its affiliates shall not be held liable for any damage resulting from handling.