Version: 1.2

Revision date: 07.06.2024

Safety Data Sheet

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

SECTION 1: Identification

Product identifier

Trade name/designation:	Isopropyl Alcohol 70% Solution, Sterile BAKER
Product No.:	P002
Synonyms:	none

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

Recommended use	For Laboratory, Research or Manufacturing Use.
Uses advised against	Not determined.

Details of the supplier of the safety data sheet

Supplier

Avantor Performance Materials, LLC.

Street	100 Matsonford Rd, Suite 200
Postal code/City	Radnor, PA 19087, United States
Telephone	+1-855-282-6867
Telefax	+1-610-573-2610

Emergency phone number

Telephone	+1-800-424-9300 (Chemtrec, 24 hrs/day, 7 days/week, USA and Canada)

Preparation Information
Product Information Compliance

E-mail	SDS@avantorsciences.com

SECTION 2: Hazard identification

Classification of the substance or mixture

Label elements

Physical hazards

Flammable liquid, category 2

Health hazards

Eye irritation, category 2

Specific target organ toxicity (single exposure), category 3, narcotic effect

Hazard 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
Prevention:
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P223 - Do not allow contact with water.
P243 - Take precautionary measures against static discharge.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P242 - Use only non-sparking tools.

Response:
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER/doctor/…/if you feel unwell.
P337+P313 - If eye irritation persists: Get medical advice/attention.

Storage:
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.

Disposal:
P501 - Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)
none

SECTION 3: Composition/information on ingredients

Substances

not applicable

Mixtures

Substance name	Identifier	Concentration
2-Propanol	CAS No.: 67-63-0	60 - 70%

SECTION 4: First aid measures

General information

Do not leave affected person unattended. Take off immediately all contaminated clothing. When in doubt or if symptoms are observed, get medical advice.

In case of inhalation
Remove casualty to fresh air and keep warm and at rest. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. In case of respiratory tract irritation, consult a physician.

In case of skin contact
Remove contaminated, saturated clothing immediately. Wash with plenty of soap and water. If skin irritation occurs: Get medical help.

After eye contact:
Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.

In case of ingestion
Never give anything by mouth to an unconscious person or a person with cramps. Rinse mouth thoroughly with water. Spit out all liquid. Induce vomiting when the affected person is not unconscious. Seek medical advice immediately.

Most important symptoms/effects, acute and delayed
After inhalation: Cough. Shortness of breath. Irritation of the mucous membranes of the (upper) respiratory tract. After skin contact: Erythema (Redness). Irritation. After eye contact: Conjunctivitis. Causes serious eye damage. After ingestion: Nausea. After resorption: Depression of central nervous system. Coma. Dyspnoea. Causes damage to kidneys if inhaled.

Indication of any immediate medical attention and special treatment needed
After inhalation: After inhalation, immediate application of glucocorticoids (inhalative), administration of oxygen and immobilization of the affected person are indicated. If necessary, all further measures of pulmonary edema prophylaxis. After skin contact: Repeat decontamination (first aid measures): Do not use alcohol, petrol or other solvents for rinsing. If necessary, treat skin irritations with a dermatocorticoid foam. After eye contact: Treat symptomatically. After ingestion: Let water be drunken in little sips (dilution effect). Do not administer ethanol, as this would considerably slow down the metabolization to less toxic acetone, which is beneficial for the casualty.

SECTION 5: Fire fighting measures

Extinguishing media

Suitable extinguishing media
ABC-powder
Carbon dioxide (CO_2).
Dry sand
Nitrogen

Extinguishing media which must not be used for safety reasons
Full water jet.

Specific hazards arising from the chemical
Flammable liquids.
Risk of ignition.
Vapor may form explosive mixtures with air.
Vapors can travel considerable distances to a source of ignition where they can ignite, flash back, or explode.
Closed containers may burst when pressure and temperature rise.
In case of fire may be liberated:
Pyrolysis products, toxic

Advice for firefighters
In case of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters:
Wear a self-contained breathing apparatus and chemical protective clothing.

Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Wear personal protection equipment (refer to section 8). Do not breathe gas/fume/vapor/spray. Move undamaged containers from immediate danger zone if it can be done safely. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. For emergency responders: Wear fire/flame resistant/retardant clothing. Wear full chemical protective clothing. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray/stream to protect personnel and to cool endangered containers.

Environmental precautions

Do not allow to enter into surface water or drains. Cover drains. Explosion risk. Advise Authorities if spillage has entered water course or sewer or has contaminated soil or vegetation.

Methods and material for containment and cleaning up

Large spills: Dike or dam to contain for later disposal. Take up mechanically, placing in appropriate containers for disposal. Small spills: Allow to evaporate if it is safe to do so or contain and absorb using earth, sand or other inert material then transfer into suitable containers for recovery or disposal.Small spills: Allow to evaporate if it is safe to do so or contain and absorb using earth, sand or other inert material then transfer into suitable containers for recovery or disposal. Dispose according to legislation.

Additional information

Personal protection equipment (PPE): see section 8 SECTION 13. Information regarding the disposal of the products

SECTION 7: Handling and storage

Precautions for safe handling

Advices on safe handling
Wear personal protection equipment (refer to section 8).
Avoid contact with eyes and skin.
Avoid inhalation of the product.
Use extractor hood (laboratory).
Provide adequate ventilation.
Measures to prevent fire, aerosol and dust generation
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharges.
Measures required to protect the environment
Due to danger of explosion, prevent leakage of vapors into cellars, flues and ditches.

Wash hands before breaks and after work. Avoid contact with eyes and skin. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

Conditions for safe storage, including any incompatibilities

Recommended storage temperature: 15-25 °C
Storage: Keep container tightly closed and in a well-ventilated place. Keep/Store away from combustible materials. Protect from sunlight. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Suitable container/equipment material: Glass Steel Stainless steel Unsuitable container/equipment material: Aluminium Polyethylene PVC (polyvinyl chloride)

SECTION 8: Exposure controls/personal protection

Control parameters

Ingredient (Designation)	Source	Country	parameter	Limit value
2-Propanol	NIOSH	US	LTV	980 mg/m³ - 400 ppm
2-Propanol	NIOSH	US	STV	1225 mg/m³ - 500 ppm
2-Propanol	OSHA	US	LTV	980 mg/m³ - 400 ppm

Engineering controls

Appropriate engineering controls
Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

Personal protection equipment (PPE)
Wear suitable protective clothing. When handling with chemical substances, protective clothing must be worn.

Eye/face protection
Eye glasses with side protection

Skin protection
Wear suitable gloves. When handling with chemical substances, protective gloves must be worn. In the case of wanting to use the gloves again, clean them before taking off and air them well. Check leak tightness/impermeability prior to use.

By short-term hand contact	
Suitable material:	NBR (Nitrile rubber)
Thickness of the glove material:	0,12 mm
Breakthrough time	51 min

By long-term hand contact	
Suitable material:	NBR (Nitrile rubber)
Thickness of the glove material:	0,38 mm
Breakthrough time	> 480 min

Respiratory protection
Respiratory protection necessary at: aerosol or mist formation If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

Additional information
Wash hands before breaks and after work. Avoid contact with eyes and skin. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

Environmental exposure controls
no data available

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

(a) Appearance	
Physical state:	liquid
Color:	colorless
(b) Odor:	characteristic
(c) Odor threshold:	no data available

Safety relevant basic data

(d) pH:	no data available
(e) Melting point/freezing point:	no data available
(f) Initial boiling point and boiling range:	no data available
(g) Flash point:	20.5 °C
(h) Evaporation rate:	no data available
(i) Flammability (solid, gas):	Highly flammable liquid and vapor.
(j) Flammability or explosive limits	
Lower explosion limit:	no data available
Upper explosion limit:	no data available
(k) Vapor pressure:	no data available
(l) Vapor density:	2.1
(m) Density:	0.85 g/cm³ (20 °C)
(n) Solubility(ies)	
Water solubility:	miscable
Soluble (g/L) in Ethanol:	no data available
(o) Partition coefficient: n-octanol/water:	no data available
(p) Auto-ignition temperature:	no data available
(q) Decomposition temperature:	Not applicable
(r) Viscosity	
Kinematic viscosity:	no data available
Dynamic viscosity:	no data available
(s) Explosive properties:	Not applicable
(t) Oxidising properties:	Not applicable

Other information

Bulk density:	no data available
Refraction index:	no data available
Dissociation constant:	no data available
Surface tension:	no data available
Henry's Law Constant:	no data available

SECTION 10: Stability and reactivity

Reactivity

Reactive substance.
Vapors may form explosive mixtures with air.
Risk of ignition.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions

Violent reaction with:
Alkali metals
Acetic anhydride
Peroxides
Nitric acid
Phosphorus oxides
Perchlorates
Halogenated compounds

Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Incompatible materials:

Oxidising agent.
Peroxides
Strong acid
Hydrogen
arsenic
antimony

Hazardous decomposition products

Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

Information on toxicological effects

Acute effects

Acute oral toxicity:
2-Propanol - LD50: > 5045 mg/kg - Rat - (RTECS)

2-Propanol - LDLo: > 3570 mg/kg - Human - (RTECS)

Acute dermal toxicity:
2-Propanol - LD50: > 12800 mg/kg - Rabbit - (RTECS)

Acute inhalation toxicity:
2-Propanol - LC50: 72600 mg/m³ - Rat - (Japan GHS Basis for Classification Data)

Irritant and corrosive effects:

Primary irritation to the skin:
Not applicable

Irritation to eyes:
Causes serious eye irritation.

Irritation to respiratory tract:
Not applicable

Respiratory or skin sensitization
In case of skin contact: not sensitizing
In case of inhalation: not sensitizing

STOT-single exposure
May cause drowsiness or dizziness.

STOT-repeated exposure
Not applicable

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
Carcinogenicity
No indication of human carcinogenicity.

Germ cell mutagenicity
No indications of human germ cell mutagenicity exist.

Reproductive toxicity
No indications of human reproductive toxicity exist.

Aspiration hazard
Not applicable

Other adverse effects
no data available

SECTION 12: Ecological information

Ecotoxicity

Fish toxicity:
2-Propanol - LC50: 4200 - 11100 mg/l (96 h) - Brooke, L.T., D.J. Call, D.L. Geiger, and C.E. Northcott 1984. Acute Toxicities of Organic Chemicals to Fathead Minnows (Pimephales promelas), Vol. 1. Center for Lake Superior Environmental Stud., Univ.of Wisconsin-Superior, Superior, WI :414

Daphnia toxicity:
2-Propanol - LC50: 1400 mg/l (48 h) - Blackman, R.A.A. 1974. Toxicity of Oil-Sinking Agents. Mar.Pollut.Bull. 5:116-118

Algae toxicity:
2-Propanol - EC10: 1800 mg/l (7 d) - ECHA

Bacteria toxicity:
no data available

Persistence and degradability
no data available

Bioaccumulative potential
Partition coefficient: n-octanol/water: no data available

Mobility in soil:
no data available

Other adverse effects
no data available

SECTION 13: Disposal considerations

Waste treatment methods

Appropriate disposal / Product
Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package
Dispose according to legislation. Handle contaminated packages in the same way as the substance itself. This material and its container must be disposed of as hazardous waste. Do not open container by force. Warning: Do not refill! Do not pierce or burn, even after use.

SECTION 14: Transport information

Land transport (DOT)

UN-No.:	UN1219
Proper Shipping Name:	ISOPROPANOL
Class(es):	3
Hazard label(s):	3
Packing group:	II
Environmental hazards**:**	No
Marine pollutant:	No
Special precautions for user**:**	

Sea transport (IMDG)

UN-No.:	1219
Proper Shipping Name:	ISOPROPANOL
Class(es):	3
Hazard label(s):	3
Packing group:	II
Environmental hazards**:**	No
Marine pollutant:	No
Special precautions for user**:**	
Segregation group:	-
EmS-No.	F-E S-D

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
not relevant

Air transport (ICAO-TI / IATA-DGR)

UN-No.:	1219
Proper Shipping Name:	ISOPROPANOL
Class(es):	3
Classification code:	
Hazard label(s):	3
Packing group:	II
Special precautions for user:	

SECTION 15: Regulatory information

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

National regulations

Toxic Substances Control Act (TSCA)
- 2-Propanol - CAS No.: 67-63-0
- Water - CAS No.: 7732-18-5

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Does not contain listed substances.

SARA 313 Components

- 2-Propanol - CAS No.: 67-63-0

US State Regulations
Massachusetts Right To Know Components
- 2-Propanol - CAS No.: 67-63-0

Pennsylvania Right To Know Components

- 2-Propanol - CAS No.: 67-63-0

New Jersey Right To Know Components

- 2-Propanol - CAS No.: 67-63-0

California Prop. 65 Components

Does not contain listed substances.

SECTION 16: Other information

Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygiensts
DOT - Department of Transportation
IARC - International Agency for Research on Cancer
IATA-DGR - International Air Transport Association-Dangerous Goods Regulations
ICAO-TI - International Civil Aviation Organization-Technical Instructions
IMDG - International Maritime Code for Dangerous Goods
LTV - Long Term Value
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety & Health Administration
PBT - Persistent, Bioaccumulative and Toxic
PEL - Permissible Exposure Limit
STV - Short Term Value
SVHC - Substances of Very High Concern
TDG - Transport of Dangerous Goods
TLV - Threshold Limit Value
vPvB - very Persistent, very Bioaccumulative

Key literature references and sources for data

This Safety Data Sheet has been prepared based on information available for public as TOXNET information, European Chemicals Agency (ECHA) substance dossier, papers from international cancer research institutes (IARC Monographs), U.S. National Toxicology Program data, U.S. Agency for Toxic Substances and Disease Control (ATSDR), PubChem websites and SDS from our raw material manufacturers.

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07.06.2024	1.2	2024-06-07

Additional information

Indication of changes:	general update If you need an explanation of the change, contact the supplier (SDS@avantorsciences.com).

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