

Safety Data Sheet

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

Revision date: 07.02.2024

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SECTION 1: Identification

Product identifier

Trade name/designation:	2-Propanol HiPerSolv CHROMANORM [®] for HPLC
Product No.:	BDH20880.100, BDH20880.400
Synonyms:	none
CAS No.:	67-63-0

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

Recommended use	For Further Manufacturing Use Only
Uses advised against	Not for Human or Animal Drug Use

Details of the supplier of the safety data sheet

Supplier

VWR International LLC

Street	100 Matsonford Road Radnor Corporate Center, Building One, Suite 200 P. O. Box 6660
Postal code/City	Radnor, PA 19087
Telephone	+1-800-932-5000 toll-free within US/Canada +1-610-386-1700
Telefax	+1-610-728-2103

Emergency phone number

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

Preparation Information

VWR International - Product Information Compliance

E-mail SDS@avantorsciences.com

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Hazard classes and hazard categories	Hazard statements
Flammable liquid, category 2	H225
Eye irritation, category 2	H319
Specific target organ toxicity (single exposure), category 3, narcotic effect	H336

2.2 Label elements

Labelling in accordance with 29 CFR 1910.1200 (OSHA HCS)

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	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Hazard(s) not otherwise classified (HNOC)

none

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name	2-Propanol
Molecular formula	(CH ₃) ₂ CHOH
Molecular weight	60.1 g/mol
CAS No.	67-63-0

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice. Change contaminated, saturated clothing. Wash contaminated clothing before reuse. Do not leave affected person unattended.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest. Obtain medical attention if symptoms appear.

In case of skin contact

Gently wash with plenty of soap and water. In case of skin reactions, consult a physician.

After eye contact:

Rinse immediately carefully and thoroughly with eye-bath or water. Obtain medical attention if symptoms appear.

In case of ingestion

Rinse mouth thoroughly with water. Call a doctor if you feel unwell.

Self-protection of the first aider

First aider: Pay attention to self-protection!

4.2 Most important symptoms/effects, acute and delayed

Irritation. Vomiting. Nausea. Dizziness. Drowsiness.

4.3 Indication of any immediate medical attention and special treatment needed

Immediately call a POISON CENTER/doctor. Treat symptomatically.

SECTION 5: Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray.
ABC-powder
Carbon dioxide (CO₂).
Nitrogen

Extinguishing media which must not be used for safety reasons

Full water jet.

5.2 Specific hazards arising from the chemical

Move undamaged containers from immediate hazard area if it can be done safely.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
In case of fire may be liberated:
Carbon monoxide
Carbon dioxide (CO₂).

5.3 Advice for firefighters

Combustible
Vapors may form explosive mixtures with air.
The vapor is heavier than air and may travel along the ground; distant ignition possible.
The vapors are heavier than air and can accumulate in high concentrations on the ground, in cavities, channels and cellars.
Do not inhale explosion and combustion gases.
Wear a self-contained breathing apparatus and chemical protective clothing.
Do not allow run-off from fire-fighting to enter drains or water courses.
Use water spray jet to protect personnel and to cool endangered containers.
In case of fire: Evacuate area.

SECTION 6: Accidental release measures

6.1 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.
Avoid contact with skin, eyes and clothes. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Provide adequate ventilation.

6.2 Environmental precautions

Discharge into the environment must be avoided. Do not allow to enter into surface water or drains. Explosion risk.

6.3 Methods and material for containment and cleaning up

Spilled product must never be returned to the original container for recycling. Cover drains. Absorb spillage to prevent material damage. Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Dispose according to legislation.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid:
Inhalation.
Avoid contact with eyes and skin.
Use extractor hood (laboratory).
If handled uncovered, arrangements with local exhaust ventilation have to be used.
If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.
Usual measures for fire prevention.
Use personal protection equipment.

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.

7.2 Conditions for safe storage, including any incompatibilities

Recommended storage temperature: Ambient temperature

Keep container tightly closed and in a well-ventilated place. Keep/Store away from combustible materials. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Take precautionary measures against static discharges.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredient (Designation)	Source	Country	parameter	Limit value
2-Propanol	NIOSH	US	LTV	980 mg/m ³ - 400 ppm
2-Propanol	NIOSH	US	STV	1225 mg/m ³ - 500 ppm
2-Propanol	OSHA	US	LTV	980 mg/m ³ - 400 ppm

8.2 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: Butyl caoutchouc (butyl rubber)/FKM (fluoro rubber)
 Thickness of the glove material: 0,70 mm
 Breakthrough time > 480 min

By long-term hand contact

Suitable material: Butyl caoutchouc (butyl rubber)/FKM (fluoro rubber)
 Thickness of the glove material: 0,70 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

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Color:	colorless
Odor:	no data available

Safety relevant basic data

pH:	no data available
Melting point/freezing point:	-89 °C
Initial boiling point and boiling range:	82 °C (1013 hPa)
Flash point:	12 °C
Flammability:	Highly flammable liquid and vapor.
Lower and upper explosion limit	
Lower explosion limit:	2.3 % (v/v)
Upper explosion limit:	12.7 % (v/v)
Vapor pressure:	43 hPa (20 °C)
Relative vapour density:	2.07 (20 °C)
Density and/or relative density	
Density:	0.786 g/cm ³ (20 °C)
Solubility(ies)	
Water solubility:	soluble (20 °C)
Partition coefficient: n-octanol/water:	0.05 (20 °C)
Auto-ignition temperature:	425 °C (DIN 51794)
Decomposition temperature:	Not applicable
Viscosity	
Kinematic viscosity:	no data available
Dynamic viscosity:	2.2 mPa*s (20 °C)
Particle characteristics:	does not apply to liquids

9.2 Other information

Evaporation rate:	no data available
Explosive properties:	no data available
Oxidising properties:	Not applicable
Bulk density:	no data available
Refraction index:	0.3852 (589 nm; 20 °C)
Dissociation constant:	no data available
Surface tension:	no data available
Henry's Law Constant:	no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is non-reactive under normal conditions.
Risk of ignition if heated.
Vapor may form explosive mixtures with air.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Reaction with:
Oxidizing agent, strong.

10.4 Conditions to avoid

This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment).
Avoid high temperatures or direct sunlight.

10.5 Incompatible materials:

Rubber articles
Plastic articles

10.6 Hazardous decomposition products

Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity:

LD50: > 5045 mg/kg - Rat - (RTECS)

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

Acute dermal toxicity:

LD50: > 12800 mg/kg - Rabbit - (RTECS)

Acute inhalation toxicity:

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

Additional information

no data available

SECTION 12: Ecological information

12.1 Toxicity

Fish toxicity:

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:

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

Algae toxicity:

EC10: 1800 mg/l (7 d) - ECHA

Bacteria toxicity:

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: 0.05 (20 °C)

12.4 Mobility in soil:

no data available

12.5 Results of PBT/vPvB assessment

Not applicable

12.6 Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to the environment.

12.7 Other adverse effects

no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product

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

Waste code product: 070104

Appropriate disposal / Package

Dispose according to legislation. Handle contaminated packages in the same way as the substance itself.

Additional information

none

No further relevant information available.

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 16: Other information

Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygienists
 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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07.02.2024	6.1	07.02.2024

Additional information

Indication of changes Review and revision of Sections 4, 5, 6, 7 and 10.
 If you need an explanation of the change, contact the supplier (SDS@avantorsciences.com).

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guidance. The information in this document is based on the present state 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 and his Affiliates shall not be held liable for any damage resulting from handling.