

Safety Data Sheet

According to Hazardous Products Regulation (SOR/2015-17)

Revision date: 03.08.2023

Version: 6.2

Print date: 03.08.2023

SECTION 1: Identification

Product identifier

Trade name/designation:	1-Propanol HiPerSolv CHROMANORM [®] HPLC grade
Product No.:	BDH83635.400
Synonyms:	none
CAS No.:	71-23-8
Other means of identification:	

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

Street	2360 Argentia Road
Postal code/City	Mississauga, Ontario
	Canada L5N 5Z7
Telephone	+1-800-932-5000 toll-free within US/Canada
Telefax	+1-610-728-2103

Emergency phone number

Telephone +1-613-996-6666 (Canutec, 24 hrs/day, 7 days/week, Canada)

Preparation Information

VWR International - Product Information Compliance

E-mail SDS@avantorsciences.com

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

Classification according to Hazardous Products Regulation (SOR/2015-17)

Hazard classes and hazard categories	Hazard statements
Flammable liquid, category 2	H225
Acute toxicity, category 4, oral	H302
Eye irritation, category 2	H319

2.2 Label elements

Labelling in accordance with (SOR/2015-17)

Hazard pictograms



Signal word: Danger

Hazard statements	
H225	Highly flammable liquid and vapor.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.

Precautionary statements	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
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.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P242	Use only non-sparking tools.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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... to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
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

3.1 Substances

Substance name	1-Propanol
Molecular formula	$\text{H}_3\text{CCH}_2\text{CH}_2\text{OH}$
Molecular weight	60.1 g/mol
CAS No.	71-23-8

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Do not leave affected person unattended. If unconscious but breathing normally, place in recovery position and seek medical advice. Take off immediately all contaminated clothing. Highly flammable liquid and vapor. Wash contaminated clothing before reuse. 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. In case of respiratory tract irritation, consult a physician.

In case of skin contact

Remove contaminated, saturated clothing immediately. Wash off any skin contamination immediately. When in doubt or if symptoms are observed, get medical advice.

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

Rinse mouth thoroughly with water. Call a POISON CENTER.

Self-protection of the first aider

First aider: Pay attention to self-protection! Wear personal protection equipment (refer to section 8). In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

4.2 Most important symptoms/effects, acute and delayed

Irritation to eyes Risk of blindness. May cause drowsiness or dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

No special information on medical attention and special treatment available.

SECTION 5: Fire fighting measures**5.1 Extinguishing media****Suitable extinguishing media**

ABC-powder
Carbon dioxide (CO₂).
Dry sand
Nitrogen

Extinguishing media which must not be used for safety reasons

Water spray.
Full water jet

5.2 Specific hazards arising from the chemical

Combustible substance.
Serious eye damage/irritation
Fire may produce irritating, corrosive and/or toxic gases.
Flammable liquids.
In case of fire may be liberated:
Carbon monoxide
Carbon dioxide (CO₂).

5.3 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.
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). Remove victim out of the danger area. Stop leak if safe to do so. Provide adequate ventilation. First Aid, decontamination, treatment of symptoms.

6.2 Environmental precautions

No special environmental measures are necessary.

6.3 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: 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 Disposal information: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling

Use extractor hood (laboratory).

Do not breathe gas/fume/vapor/spray.

Avoid contact with eyes.

Wear personal protection equipment (refer to section 8).

Provide adequate ventilation.

Measures to prevent fire, aerosol and dust generation

Use extractor hood (laboratory).

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

Measures required to protect the environment

Avoid release to the environment.

Keep container tightly closed.

Collect spillage.

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

Storage: Keep container tightly closed and in a well-ventilated place. Keep/Store only in original container. Keep cool. Protect from sunlight. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Protect from moisture. Suitable container/equipment material: Glass Stainless steel Polyethylene Unsuitable container/equipment material: Alloy, containing copper Copper.

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

Does not contain substances above concentration limits fixing an occupational exposure limit.

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:	NBR (Nitrile rubber)
Thickness of the glove material:	0,12 mm
Breakthrough time	21 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

9.1 Information on basic physical and chemical properties

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

Safety relevant basic data

pH:	7 (200 g/l; H ₂ O; 20 °C)
Melting point/freezing point:	-127 °C
Initial boiling point and boiling range:	97 °C (1013 hPa)
Flash point:	15 °C
Flammability:	Highly flammable liquid and vapor.
Lower and upper explosion limit	
Lower explosion limit:	2.1 % (v/v)
Upper explosion limit:	13.5 % (v/v)
Vapor pressure:	19 hPa (20 °C)
Relative vapour density:	2.07 (20 °C)
Density and/or relative density	
Density:	0.8053 g/cm ³ (20 °C. DIN 51757)
Solubility(ies)	
Water solubility:	soluble (20 °C)
Partition coefficient: n-octanol/water:	0.25 (20 °C)
Auto-ignition temperature:	360 °C (DIN 51794)
Decomposition temperature:	not applicable
Viscosity	
Kinematic viscosity:	no data available
Dynamic viscosity:	2.3 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:	1.3862 (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

- Reactive substance.
- Extremely flammable liquid and vapor.
- Vapors may form explosive mixtures with air.

Hygroscopic.
Risk of ignition if heated.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Danger of explosion:
Peroxides
Perchlorates
Hydrogen peroxide.
Strong oxidizing agents.
Violent reaction with:

10.4 Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.
Keep away from:
UV-radiation/sunlight
Contact with metals liberates hydrogen gas.

10.5 Incompatible materials:

Incompatible materials:
plastic and rubber
Forms flammable and explosive hydrogen through corrosion of metals.

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:

LDLo: > 5700 mg/kg - Human - (IUCLID)

LD50: 8000 mg/kg - Rat - (OECD 401)

Acute dermal toxicity:

LD50: 4032 mg/kg - Rabbit - (IUCLID)

LD50: > 5040 mg/kg - Rat - (IUCLID)

Acute inhalation toxicity:

LC50: 33785 mg/m³ - Rat - (IUCLID)

LC50: > 33.8 mg/l - Rat - (OECD 403)

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

not applicable

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: 4555 mg/l (96 h) Pimephales promelas - OECD 203

Daphnia toxicity:

EC50: 3644 mg/l (48 h) Daphnia Magna - Kuehn and al. 1989

NOEC: mg/l (21 d) Daphnia Magna - OECD 211

Algae toxicity:

EC50: 6370 mg/l (48 h) Pseudokirchneriella subcapitata - Hsieh and al. 2006

NOEC: 1150 mg/l (48 h) Chlorella pyrenoidosa - Slooff and al. 1983

Bacteria toxicity:

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: 0.25 (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

This product and its container must be disposed of as hazardous waste. Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product: 160508

Appropriate disposal / Package

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

Additional information

Directive 2008/98/EC (Waste Framework Directive)

No further relevant information available.

SECTION 14: Transport information

Land transport (TDG)

UN-No.:	1274
Proper Shipping Name:	N-PROPANOL
Class(es):	3
Packing group:	II
Environmental hazards:	No
Marine pollutant:	No
Special precautions for user:	

Sea transport (IMDG)

UN-No.:	1274
Proper Shipping Name:	N-PROPANOL
Class(es):	3
Classification code:	
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.:	1274
Proper Shipping Name:	N-PROPANOL
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

Domestic Substance List:

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.

Revision date	Version	Print date
03.08.2023	6.2	03.08.2023

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.