

Safety Data Sheet

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

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SECTION 1: Identification

Product identifier

Trade name/designation:	Traceable® Conductivity Calibration Standard
Product No.:	23226-650
Synonyms:	none
CAS No.:	not applicable

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 3	H226
Serious eye damage, category 1	H318
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	
H226	Flammable liquid and vapor.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.

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.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P242	Use only non-sparking tools.
P202	Do not handle until all safety precautions have been read and understood.
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.
P370+P378	In case of fire: Use... to extinguish.

Hazard(s) not otherwise classified (HNOC)

none

SECTION 3: Composition/information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Hazardous ingredients Classification according to the OSHA Hazard Communication Standard 29 CFR 1910.1200

Substance name	Concentration	Identifier	Hazard classes and hazard categories
1-Propanol	30%	CAS No.: 71-23-8	Flam. Liq. 2 - H225 Eye Dam. 1 - H318 STOT SE 3 - H336

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:
Pyrolysis products, toxic

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: no data available

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	20 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:	~7-9
Melting point/freezing point:	no data available
Initial boiling point and boiling range:	no data available
Flash point:	35 °C (closed cup)
Flammability:	Flammable liquid and vapor.
Lower and upper explosion limit	
Lower explosion limit:	2.1 % (v/v)
Upper explosion limit:	13.7 % (v/v)
Vapor pressure:	no data available
Relative vapour density:	no data available
Density and/or relative density	
Density:	0.95 g/cm ³ (20 °C)
Solubility(ies)	
Water solubility:	soluble (20°C)
Partition coefficient: n-octanol/water:	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	not applicable
Viscosity	
Kinematic viscosity:	no data available
Dynamic viscosity:	no data available
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:	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

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:

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

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

Acute dermal toxicity:

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

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

Acute inhalation toxicity:

1-Propanol - LC50: 33785 mg/m³ - Rat - (IUCLID)

1-Propanol - 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 damage.

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:

1-Propanol - LC50: 4555 mg/l (96 h) Pimephales promelas - OECD 203

Daphnia toxicity:

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

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

Algae toxicity:

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

1-Propanol - 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: no data available

12.4 Mobility in soil:

no data available

12.5 Results of PBT/vPvB assessment

not applicable

12.6 Endocrine disrupting properties

This product does not contain a substance that has 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: no data available

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.:	UN1274
Proper Shipping Name:	N-PROPANOL
Class(es):	3
Hazard label(s):	3
Packing group:	III
Environmental hazards:	No
Marine pollutant:	No
Special precautions for user:	

Sea transport (IMDG)

UN-No.:	1274
Proper Shipping Name:	N-PROPANOL
Class(es):	3
Hazard label(s):	3
Packing group:	III
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:	III
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)

- 1-Propanol - CAS No.: 71-23-8
- Potassium chloride - CAS No.: 7447-40-7
- Water - CAS No.: 7732-18-5

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Does not contain listed substances.

SARA 313 Components

Does not contain listed substances.

US State Regulations

Massachusetts Right To Know Components

- 1-Propanol - CAS No.: 71-23-8

Pennsylvania Right To Know Components

- 1-Propanol - CAS No.: 71-23-8

New Jersey Right To Know Components

- 1-Propanol - CAS No.: 71-23-8

California Prop. 65 Components

Does not contain listed substances.

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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21.09.2023	1.0	21.09.2023

Additional information

Indication of changes none/none

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.