

Safety Data Sheet

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

Revision date: 13.12.2022

Version: 1.0

Print date: 13.12.2022

SECTION 1: Identification

Product identifier

Trade name/designation:	Pyridine HiPerSolv CHROMANORM [®] HPLC grade
Product No.:	BDH67007.400
Synonymes:	none
CAS No.:	110-86-1
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
Skin irritation, category 2	H315
Eye irritation, category 2	H319
Carcinogenicity, category 2	H351
Acute toxicity, category 4, oral, dermal and inhalation	H302+H312+H332

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+H312+H332	Harmful if swallowed, in contact with skin or if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.

Precautionary statements	
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take precautionary measures against static discharge.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water/...
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.
P308+P311	IF exposed or concerned: Call a POISON CENTER/doctor/...
P403+P235	Store in a well-ventilated place. Keep cool.

Hazards not otherwise classified (HNOC)

none

SECTION 3: Composition / information on ingredients

3.1 Substances

Substance name	Pyridine
Molecular formula	C ₅ H ₅ N
Molecular weight	79.1 g/mol
CAS No.	110-86-1

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

No special information on medical attention and special treatment available.

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).
Nitrogen oxides (NO_x)

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.

Additional information

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/stream 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). Avoid contact with eyes and skin. Avoid breathing dust/mist. Provide adequate ventilation. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.
Remove victim out of the danger area.

6.2 Environmental precautions

Cover drains. Do not allow to enter into surface water or drains. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Explosion risk.

6.3 Methods and material for containment and cleaning up

Clear spills immediately. Collect in closed and suitable containers for disposal. Small amounts of spillages: Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Large amounts of spillages: Take up mechanically.

6.4 Additional information

Personal protection equipment (PPE): see section 8 Safe handling: see section 7 Disposal information: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

All work processes must always be designed so that the following is as low as possible:

Inhalation.

Skin contact.

Eye contact.

Use extractor hood (laboratory).

Provide adequate ventilation.

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

Take precautionary measures against static discharges.

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.

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

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:	0,425 mm
Breakthrough time:	13 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

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

Safety relevant basic data

(d) pH:	8.5 (15 g/l; H ₂ O; 20 °C)
(e) Melting point/freezing point:	-44 °C
(f) Initial boiling point and boiling range:	115 °C (1013 hPa)
(g) Flash point:	17 °C
(h) Evaporation rate:	no data available
(i) Flammability (solid, gas):	Highly flammable liquid and vapor.
(j) Flammability or explosive limits	
Lower explosion limit:	1.7 % (v/v)
Upper explosion limit:	13 % (v/v)
(k) Vapor pressure:	20 hPa (20 °C)
(l) Vapor density:	2.73 (20 °C)
(m) Density:	0.983 g/cm ³ (20 °C)
(n) Solubility(ies)	
Water solubility:	soluble (20 °C)
(o) Partition coefficient: n-octanol/water:	no data available
(p) Auto-ignition temperature:	482 °C
(q) Decomposition temperature:	490 °C (1013 hPa)
(r) Viscosity	
Kinematic viscosity:	no data available
Dynamic viscosity:	0.95 mPa*s (20 °C)
(s) Explosive properties:	not applicable
(t) Oxidising properties:	not applicable
(u) Particle characteristics:	does not apply to liquids

9.2 Other information

Bulk density:	no data available
Refraction index:	1.5092 (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

- Vapor may form explosive mixtures with air.
- Risk of ignition.
- In case of warming:

Risk of ignition.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Violent reaction with:

Oxidising agent

Reducing agent

Acid

Alkali metals

Peroxides

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.

10.7 Additional information

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity:

LD50: > 891 mg/kg - Rat - (RTECS)

LD50: 800 mg/kg - Rat - (ECHA)

Acute dermal toxicity:

LD50: > 1121 mg/kg - Rabbit - (RTECS)

LD50: 1100 mg/kg - Rabbit - (OECD 402)

Acute inhalation toxicity:

LC50: 12.898 mg/l - Rat - (Japan GHS Basis for Classification Data)

LC50: 15852 mg/m³ (4 h) - Rat - (EPA OPPTS 870.1300 (Acute inhalation toxicity))

Irritant and corrosive effects

Primary irritation to the skin:

Causes skin irritation.

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

Suspected of causing cancer.

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 Ecotoxicity

Fish toxicity:

LC50: 6.3 mg/l (96 h) - Wan, M.T., D.J. Moul, and R.G. Watts 1987. Acute Toxicity to Juvenile Pacific Salmonids of Garlon 3A, Garlon 4, Triclopyr, Triclopyr Ester, and Their Transformation Products: Bull.Environ.Contam.Toxicol. 39(4):721-728 (OECDG Data File)

Daphnia toxicity:

LC50: 1130 mg/l (48 h) - Canton, J.H., and D.M.M. Adema 1978. Reproducibility of Short-Term and Reproduction Toxicity Experiments with Daphnia magna. Hydrobiologia 59(2):135-140 (Used Reference 2018)

Algae toxicity:

EC50: 110 mg/l (96 h) - Slooff, W. 1982. A Comparative Study on the Short-Term Effects of 15 Chemicals on Fresh Water Organisms of Different Tropic Levels. Natl.Tech.Inf.Serv., Springfield, VA :25 p. (DUT) (ENG ABS) (NTIS/PB83-200386)

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 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: 160508

Appropriate disposal / Package

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

Additional information

no data available

SECTION 14: Transport information

Land transport (TDG)

UN-No.:	1282
Proper Shipping Name:	PYRIDINE
Class(es):	3
Packing group:	II
Environmental hazards:	No
Marine pollutant:	No
Special precautions for user:	

Sea transport (IMDG)

UN-No.:	1282
Proper Shipping Name:	PYRIDINE
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.:	1282
Proper Shipping Name:	PYRIDINE
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
13.12.2022	1.0	13.12.2022

Additional information

Indication of changes general update

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.