# Chemical Safety Data Sheet MSDS / SDS

# 1,2-BENZENEDITHIOL

Revision Date: 2025-02-01 Revision Number: 1

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

# Product identifier Product name : 1,2-BENZENEDITHIOL CBnumber : CB2246783 CAS : 17534-15-5 EINECS Number : 241-530-4

: 1,2-benzenedithiol,Benzene-1,2-dithiol

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

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.

Uses advised against : none

#### **Company Identification**

Synonyms

Company : Chemicalbook

Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing

Telephone : 010-86108875

#### SECTION 2: Hazards identification

# GHS Label elements, including precautionary statements Symbol(GHS) Signal word Warning

#### Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

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.

Continuerinsing.

P501 Dispose of contents/container to.....

#### Hazard statements

H302 Harmful if swallowed

H312 Harmful in contact with skin

H315 Causes skin irritation

H318 Causes serious eye damage

H319 Causes serious eye irritation

H332 Harmful if inhaled

### SECTION 3: Composition/information on ingredients

#### **Substance**

Product name : 1,2-BENZENEDITHIOL

Synonyms: 1,2-benzenedithiol,Benzene-1,2-dithiol

CAS : 17534-15-5
EC number : 241-530-4
MF : C6H6S2
MW : 142.24

#### SECTION 4: First aid measures

#### Description of first aid measures

#### General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

#### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### Indication of any immediate medical attention and special treatment needed

No data available

# SECTION 5: Firefighting measures

#### **Extinguishing media**

#### Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

#### Special hazards arising from the substance or mixture

Carbon oxides Sulfur oxides Combustible.

Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

#### Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

#### **Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

#### **NFPA 704**

1 2 1

HEALTH 2 Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethylether, ammonium phosphate, iodine)

Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion

FIRE 1 can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. mineral oil, ammonia)

REACT 1 Normally stable, but can become unstable at elevated temperatures and pressures (e.g. propene)

SPEC. HAZ.

#### SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

#### **Environmental precautions**

Do not let product enter drains.

#### Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquidabsorbent material (e.g.

Chemizorb?). Dispose of properly. Clean up affected area.

#### Reference to other sections

For disposal see section 13.

#### SECTION 7: Handling and storage

#### Precautions for safe handling

#### Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

#### Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

#### Conditions for safe storage, including any incompatibilities

#### Storage conditions

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

#### Storage stability

Recommended storage temperature 2 - 8 °C

Air sensitive. Store under inert gas. Stench.

#### 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

#### control parameter

#### Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

#### **Exposure controls**

#### Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate

government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

required

**Body Protection** 

protective clothing

**Respiratory protection** 

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type ABEK

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

# SECTION 9: Physical and chemical properties

#### Information on basic physicochemical properties

Appearance	colorless liquid, clear
Odour	pungent
Odour Threshold	No data available
рН	No data available
Melting point/freezing point	Melting point/range: 22 - 24 °C
Initial boiling point and boiling range	119 - 120 °C at 23 hPa
Flash point	104 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive	No data available
limits	
Vapour pressure	No data available
Vapour density	No data available
Relative density	1.236
Water solubility	slightly soluble
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available

Other safety information

# SECTION 10: Stability and reactivity

#### Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

#### Chemical stability

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

#### Possibility of hazardous reactions

No data available

#### Conditions to avoid

Strong heating.

#### Incompatible materials

Strong oxidizing agents, Strong bases

#### Hazardous decomposition products

In the event of fire: see section 5

# **SECTION 11: Toxicological information**

#### Information on toxicological effects

#### Acute toxicity

Acute toxicity estimate Oral - 5,1 mg/kg (Expert judgment)

Oral

Acute toxicity estimate Inhalation - 0,051 mg/l (Expert judgment)

Acute toxicity estimate Inhalation - 0,051 mg/l (Expert judgment)

The value is given in analogy to the following substances: thiophenol Acute toxicity estimate Dermal - 50,1 mg/kg

(Expert judgment)

Acute toxicity estimate Dermal - 50,1 mg/kg (Expert judgment)

The value is given in analogy to the following substances: thiophenol

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

No data available

#### Reproductive toxicity

Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

#### Specific target organ toxicity - single exposure

The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

The value is given in analogy to the following substances: thiophenol

#### Specific target organ toxicity - repeated exposure

Oral - The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1. - Kidney

The value is given in analogy to the following substances: thiophenol

#### **Aspiration hazard**

No data available

# **SECTION 12: Ecological information**

#### **Toxicity**

No data available

#### Persistence and degradability

No data available

#### **Bioaccumulative potential**

No data available

#### Mobility in soil

No data available

#### Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### Other adverse effects

No data available

# SECTION 13: Disposal considerations

#### Waste treatment methods

#### **Product**

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

# **SECTION 14: Transport information**

#### **UN** number

ADR/RID: - IMDG: - IATA: 3335

#### **UN proper shipping name**

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Aviation regulated solid, n.o.s. (Benzene-1,2-dithiol)

#### Transport hazard class(es)

ADR/RID: - IMDG: - IATA: 9

#### **Packaging group**

ADR/RID: - IMDG: - IATA: III

#### **Environmental hazards**

ADR/RID: no IMDG Marine pollutant: no IATA: no

#### Special precautions for user

No data available

# SECTION 15: Regulatory information

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

#### Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

#### Measures for Environmental Management of New Chemical Substances

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Not Listed. website: https://www.mee.gov.cn/

Korea Existing Chemicals List (KECL):Not Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Not Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Not Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Not Listed. website: https://www.epa.gov/

#### SECTION 16: Other information

#### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit TWA: Time Weighted Average

#### References

- [1] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- [2] ChemlDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- [3] ECHA European Chemicals Agency, website: https://echa.europa.eu/
- [4] eChemPortal The Global Portal to Information on Chemical Substances by OECD, website:

http://www.echemportal.org/echemportal/index?pageID=0&request\_locale=en

- [5] ERG Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
- [6] Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
- [7] HSDB Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- [8] IARC International Agency for Research on Cancer, website: http://www.iarc.fr/
- [9] IPCS The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- [10] Sigma-Aldrich, website: https://www.sigmaaldrich.com/

#### Disclaimer:

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