

SAFETY DATA SHEET

Version 6.4
Revision Date 2021.10.30
Print Date 2024.08.10
Date of first issue 2019.03.14
Product Number Aldrich - 133159

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

- a. Product name : Bathophenanthroline
- Product Number : 133159
- Brand : Aldrich
- b. Recommended use of the chemical and restrictions on use : **Identified uses**
Laboratory chemicals, For research use only.
- c. Company : 씨그마알드리치코리아(유)
서울특별시 강남구 테헤란로 508,
3층 (대치동, 해성2빌딩)
- Sigma-Aldrich Korea
3F Haesung-2-building Teheran-ro 508 Gangnam-gu,
SEOUL 06178
SOUTH KOREA
- Telephone : +82 -2-2185-1700
- Fax :
- Emergency Phone # : 080 880 0468 (CHEMTREC) +82 2 2185
3800 영업시간 - 09:00~18:00, 월요일 -
금요일 (공휴일 제외)

SECTION 2: Hazards identification**a. GHS Classification**

This material is not classified as hazardous under the Article 104 of the Occupational Safety and Health Act (OSHA). It is not regulated for the MSDS creation and labeling by the provision of Article 110 Paragraph 1 of the OSHA.

b. GHS-Labeling

Pictogram

Signal word Not applicable

Hazard statement(s)
Not applicable

Precautionary statement(s)

General advice

Not applicable

This material is not classified as hazardous under the Article 104 of the Occupational Safety and Health Act (OSHA). It is not regulated for the MSDS creation and labeling by the provision of Article 110 Paragraph 1 of the OSHA.

c. Other hazards which do not result in classification

none

SECTION 3: Composition/information on ingredients

3a Substances

Synonyms : 4,7-Diphenyl-1,10-phenanthroline
BPhen

Formula : C₂₄H₁₆N₂
Molecular weight : 332.40 g/mol
CAS-No. : 1662-01-7
EC-No. : 216-767-1

No components need to be disclosed according to the applicable regulations.

SECTION 4: First aid measures

a. In case of eye contact

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

b. In case of skin contact

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

c. If inhaled

After inhalation: fresh air.

d. If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

e. Most important acute symptoms/effects

No data available

Most important delayed symptoms/effects

No data available

f. Notes to physician

No data available

SECTION 5: Firefighting measures

a. Suitable extinguishing media

Water Foam Carbon dioxide (CO₂) Dry powder

Extinguishing media which shall not be used for safety reasons

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

b. Specific hazards arising from the chemical

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

c. Special protective actions for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

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.

SECTION 6: Accidental release measures**a. Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

b. Environmental precautions

Do not let product enter drains.

c. 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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7: Handling and storage**a. Precautions for safe handling****b. Conditions for safe storage**

Tightly closed. Dry.

c. Storage class

Storage class (TRGS 510): 11: Combustible Solids

SECTION 8: Exposure controls/personal protection**a. Control parameters**

Contains no substances with occupational exposure limit values.

b. Appropriate engineering controls

No data available

c. Personal protective equipment**Respiratory protection**

required when dusts 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.

Hand protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min
Material tested:KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

SECTION 9: Physical and chemical properties

a. Appearance

Form crystalline

Color light yellow

b. Odor No data available

c. Odor Threshold No data available

d. pH No data available

e. Melting point 218 - 220 °C - lit.

f. Initial boiling point No data available

g. Flash point Not applicable

h. Evaporation rate No data available

i. Flammability
(solid, gas) No data available

j. Lower explosion
limit No data available

Upper explosion
limit No data available

k. Vapor pressure No data available

l. Water solubility No data available

m. Relative vapor density	No data available
n. Density	No data available
o. Partition coefficient: n-octanol/water	No data available
p. Autoignition temperature	No data available
q. Decomposition temperature	No data available
r. Viscosity, dynamic	No data available
Viscosity, kinematic	No data available
s. Molecular weight	332.40 g/mol

SECTION 10: Stability and reactivity

a. Chemical stability

No data available

b. Possibility of hazardous reactions

Violent reactions possible with:
Strong oxidizing agents

c. Conditions to avoid

no information available

d. Incompatible products

No data available

e. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)

Other decomposition products - No data available

Thermal decomposition

No data available

SECTION 11: Toxicological information

a. Information on likely routes of exposure

No data available

b. Delayed and immediate effects and also chronic effects from short and long term exposure

Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Carcinogenicity

No data available

Germ cell mutagenicity

Genotoxicity in vitro

Test Type: Mouse

Test system: Other cell types

Remarks: DNA inhibition
(RTECS)

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

c. Numerical measures of toxicity

No data available

Additional Information

RTECS: SF8427000

SECTION 12: Ecological information**a. Ecotoxicity effects**

No data available

b. Elimination information (persistence and degradability)

No data available

c. Bioaccumulative potential

No data available

d. Mobility in soil

No data available

e. Other adverse effects

No data available

SECTION 13: Disposal considerations

a. Disposal methods

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. 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

IMDG

Not dangerous goods

IATA

Not dangerous goods

Further information

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

a. Regulation under the Occupational Safety and Health Act

Harmful Substances Required Permission for Manufacture - Not applicable

Harmful Substances Prohibited from Manufacturing - Not applicable

Harmful Agents to be kept below Occupational Exposure Limits - Not applicable

Controlled Substances Subject to Environment Monitoring - Not applicable

Controlled Substances Subject to Health Examination - Not applicable

Hazardous substances requiring management - Not applicable

Special Management Materials - Not applicable

b. Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act

Toxic Chemicals - Not applicable

Restricted Chemicals - Not applicable

Prohibited Chemicals - Not applicable

Accident Precaution Chemicals - Not applicable

c. Dangerous Substances Safety Management Act

Not Applicable to Dangerous Materials

d. Waste Control Act

Follow article 13 of the act to dispose the product waste

e. Other regulations

KECI Number

Not in compliance with the inventory

CAS-No.
1662-01-7

SECTION 16: Other information

a. List of references

b. Issuing date: 2019.03.14

c. Version: 6.4 Revision Date 2021.10.30

e. Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our 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. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Copyright 2020 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only.

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact mlsbranding@sial.com.