# Chemical Safety Data Sheet MSDS / SDS

# 5-Bromoisatoic anhydride

Revision Date:2024-11-30 Revision Number:1

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

# **Product identifier**

| Product name  | : 5-Bromoisatoic anhydride  |  |  |  |
|---|---|--|--|--|
| CBnumber  | : CB2341787   |  |  |  |
| CAS   | : 4692-98-2   |  |  |  |
| EINECS Number   | : 230-454-7   |  |  |  |
| Synonyms  | : 6-bromo-2H-benzo[d][1,3]oxazine-2,4(1H)-dione,6-bromo-1H-benzo[d][1,3]oxazine-2,4-dione |  |  |  |
| Relevant identified uses of the substance or mixture and uses advised against |   |  |  |  |
| Relevant identified uses of the s   | substance or mixture and uses advised against   |  |  |  |
| Relevant identified uses of the s   | : For R&D use only. Not for medicinal, household or other use.                            |  |  |  |
|   | _   |  |  |  |
| Relevant identified uses  | : For R&D use only. Not for medicinal, household or other use.                            |  |  |  |

| Company   | . Chemicalbook   |
|-----------|--|
| Address   | : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing |
| Telephone | : 400-158-6606   |

# SECTION 2: Hazards identification

# GHS Label elements, including precautionary statements

Symbol(GHS)



Signal word

Danger

Precautionary statements

P308+P313 IF exposed or concerned: Get medical advice/attention.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash skin thouroughly after handling.

P264 Wash hands thoroughly after handling.

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

P201 Obtain special instructions before use.

#### Hazard statements

H360 May damage fertility or the unborn child

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H335 May cause respiratory irritation H332 Harmful if inhaled H319 Causes serious eye irritation H315 Causes skin irritation H312 Harmful in contact with skin

# SECTION 3: Composition/information on ingredients

### Substance

| Product name | : 5-Bromoisatoic anhydride  |
|--------------|---|
| Synonyms     | : 6-bromo-2H-benzo[d][1,3]oxazine-2,4(1H)-dione,6-bromo-1H-benzo[d][1,3]oxazine-2,4-dione |
| CAS          | : 4692-98-2   |
| EC number    | : 230-454-7   |
| MF           | : C8H4BrNO3   |
| MW           | : 242.03  |
|              |   |

# SECTION 4: First aid measures

### Description of first aid measures

### General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

# 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

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

# Special hazards arising from the substance or mixture

Carbon oxides Nitrogen oxides (NOx) Hydrogen bromide gas

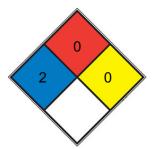
### Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

# **Further information**

No data available

# **NFPA 704**



| HEALTH | 2 | Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. <u>diethyl</u> <u>ether</u> , ammonium phosphate, iodine)   |
|--------|---|--|
| FIRE   | 0 | Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride) |
| REACT  | 0 | Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, <u>N2</u> )   |
| SPEC.  |   |  |
| HAZ.   |   |  |

# SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### **Reference to other sections**

For disposal see section 13.

# Precautions for safe handling

### Advice on safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Advice on safe

### handling

Avoid exposure - obtain special instructions before use.

#### Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.Normal measures for preventive fire protection.

### **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. For precautions see section 2.2.

### Conditions for safe storage, including any incompatibilities

#### Storage conditions

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

### Storage class

Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

# 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

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

#### **Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection** 

Where risk assessment shows air-purifying respirators are appropriate use a full- face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

# SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

| OdourNo data availableOdour ThresholdNo data availablePHNo data availableMelting point/freezing pointMelting point/range: 280 - 285 °C - dec.Initial boiling point and boiling rangeNo data availableFlash pointNo data availableFlash pointNo data availableEvaporation rateNo data availableFlammability (solid, gas)No data availableUpper/lower flammability or explosiveNo data availableImitisVapour pressureNo data availableVapour pressureNo data availableRelative densityNo data availableWater solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data availableNo data availableNo data available | Appearance                              | tan powder  |
|--|---|---|
| pHNo data availableMelting point/freezing pointMelting point/range: 280 - 285 °C - dec.Initial boiling point and boiling rangeNo data availableFlash pointNo data availableEvaporation rateNo data availableFlammability (solid, gas)No data availableUpper/lower flammability or explosiveNo data availableImitisVapour pressureVapour densityNo data availableRelative densityNo data availableWater solubilityNo data availableWater solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoginition temperatureNo data available  | Odour                                   | No data available   |
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| Flash pointNo data availableEvaporation rateNo data availableFlammability (solid, gas)No data availableUpper/lower flammability or explosiveNo data availablelimitsNo data availableVapour pressureNo data availableVapour densityNo data availableRelative densityNo data available No data availableWater solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data available  | Melting point/freezing point            | Melting point/range: 280 - 285 °C - dec.                                      |
| Evaporation rateNo data availableFlammability (solid, gas)No data availableUpper/lower flammability or explosiveNo data availablelimitsVapour pressureNo data availableVapour densityNo data availableRelative densityNo data availableWater solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data available   | Initial boiling point and boiling range | No data available   |
| Flammability (solid, gas)No data availableUpper/lower flammability or explosiveNo data availablelimitsVapour pressureNo data availableVapour densityNo data availableRelative densityNo data available No data availableWater solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data available  | Flash point                             | No data available   |
| Upper/lower flammability or explosive   No data available     limits   No data available     Vapour pressure   No data available     Vapour density   No data available     Relative density   No data available No data available     Water solubility   No data available     Partition coefficient: n-octanol/water   No data available     Autoignition temperature   No data available  | Evaporation rate                        | No data available   |
| limits   No data available     Vapour pressure   No data available     Vapour density   No data available     Relative density   No data available No data available     Water solubility   No data available     Partition coefficient: n-octanol/water   No data available     Autoignition temperature   No data available  | Flammability (solid, gas)               | No data available   |
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| Vapour densityNo data availableRelative densityNo data available No data availableWater solubilityNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data available  | limits                                  |   |
| Relative density   No data available No data available     Water solubility   No data available     Partition coefficient: n-octanol/water   No data available     Autoignition temperature   No data available  | Vapour pressure                         | No data available   |
| Water solubility No data available   Partition coefficient: n-octanol/water No data available   Autoignition temperature No data available   | Vapour density                          | No data available   |
| Partition coefficient: n-octanol/water No data available   Autoignition temperature No data available  | Relative density                        | No data available No data available   |
| Autoignition temperature No data available   | Water solubility                        | No data available   |
|  | Partition coefficient: n-octanol/water  | No data available   |
| Decomposition temperature No data available  | Autoignition temperature                | No data available   |
|  | Decomposition temperature               | No data available   |
| Viscosity Viscosity, kinematic: No data available Viscosity, dynamic: No data available  | Viscosity                               | Viscosity, kinematic: No data available Viscosity, dynamic: No data available |
| Explosive properties No data available   | Explosive properties                    | No data available   |
| Oxidizing properties No data available   | Oxidizing properties                    | No data available   |

# Other safety information

No data available

# SECTION 10: Stability and reactivity

# Reactivity

No data available

#### **Chemical stability**

Stable under recommended storage conditions.

### Possibility of hazardous reactions

No data available

# Conditions to avoid

Avoid moisture.

### Incompatible materials

Strong oxidizing agents

### Hazardous decomposition products

In the event of fire: see section 5

# SECTION 11: Toxicological information

### Information on toxicological effects

### Acute toxicity

Oral Acute toxicity estimate Inhalation - 1,5 mg/l (Calculation method) LC50 Inhalation - 4 h - 1,5 mg/l (Acute toxicity estimate) Acute toxicity estimate Dermal - 1.100 mg/kg (Calculation method) LD50 Dermal - 1.100 mg/kg 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** Presumed human reproductive toxicant Specific target organ toxicity - single exposure Inhalation - May cause respiratory irritation. Specific target organ toxicity - repeated exposure No data available 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

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### Other adverse effects

No data available

# SECTION 13: Disposal considerations

# Waste treatment methods

# Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

# Contaminated packaging

Dispose of as unused product.

# SECTION 14: Transport information

# **UN** number

ADR/RID: - IMDG: - IATA: -

# UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

# Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

### **Packaging group**

ADR/RID: - IMDG: - IATA: -

### **Environmental hazards**

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

# Special precautions for user

### **Further information**

Not classified as dangerous in the meaning of transport regulations.

# 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:Not Listed.

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

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

Vietnam National Chemical Inventory:Not Listed. website: https://chemicaldata.gov.vn/

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

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

European Inventory of Existing Commercial Chemical Substances (EINECS):Not Listed. website: https://echa.europa.eu/

# **SECTION 16: Other information**

#### Abbreviations and acronyms

CAS: Chemical Abstracts Service ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulation concerning the International Carriage of Dangerous Goods by Rail IMDG: International Maritime Dangerous Goods IATA: International Air Transportation Association TWA: Time Weighted Average STEL: Short term exposure limit LC50: Lethal Concentration 50% LD50: Lethal Dose 50% EC50: Effective Concentration 50%

### 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/

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