sigma-aldrich.com

SAFETY DATA SHEET Version 6.0

Revision Date 05/28/2017 Print Date 11/14/2018

1. PRODUCT AND COMPANY IDENTIFICATION

| 1.1 | Product identifiers Product name | : | 2-Chlorobenzothiazole |
|-----|-------------------------------------|---|---|
| | Product Number Brand | : | 167576 Aldrich |
| | CAS-No. | : | 615-20-3 |
| 4.0 | Delever tide official and | | a substance constations and some substa |

Relevant identified uses of the substance or mixture and uses advised against 1.2

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

| Company | : | Sigma-Aldrich Inc. 3050 Spruce Street ST. LOUIS MO 63103 UNITED STATES | | |
|----------------------------|---|---|--|--|
| Telephone | : | +1 314 771-5765 | | |
| Fax | : | +1 800 325-5052 | | |
| Emergency telephone number | | | | |

1.4 g

Emergency Phone # : (314) 776-6555

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture.

2.2 GHS Label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances**

| Formula | : | C7H4CINS |
|------------------|---|--------------|
| Molecular weight | : | 169.63 g/mol |
| CAS-No. | : | 615-20-3 |
| EC-No. | : | 210-415-0 |

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

4. FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled

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

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

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

4.2 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

4.3 Indication of any immediate medical attention and special treatment needed No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information No data available

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures Avoid breathing vapours, mist or gas. For personal protection see section 8.
- 6.2 Environmental precautions No special environmental precautions required.
- **6.3 Methods and materials for containment and cleaning up** Keep in suitable, closed containers for disposal.
- **6.4 Reference to other sections** For disposal see section 13.

7. HANDLING AND STORAGE

- **7.1 Precautions for safe handling** For precautions see section 2.2.
- **7.2** Conditions for safe storage, including any incompatibilities Keep container tightly closed in a dry and well-ventilated place.
- **7.3** Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Aldrich- 167576

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

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).

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.

Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

No special environmental precautions required.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| a) | Appearance | Form: clear, liquid Colour: light yellow |
|----|--|---|
| b) | Odour | No data available |
| c) | Odour Threshold | No data available |
| d) | рН | No data available |
| e) | Melting point/freezing point | Melting point/range: 21 - 23 °C (70 - 73 °F) - lit. |
| f) | Initial boiling point and boiling range | 141 °C (286 °F) at 40 hPa - lit. |
| g) | Flash point | 110 °C (230 °F) - closed cup |
| h) | Evaporation rate | No data available |
| i) | Flammability (solid, gas) | No data available |
| j) | Upper/lower flammability or explosive limits | No data available |
| k) | Vapour pressure | No data available |
| I) | Vapour density | No data available |
| m) | Relative density | 1.303 g/mL at 25 °C (77 °F) |
| n) | Water solubility | No data available |
| o) | Partition coefficient: n- octanol/water | No data available |
| p) | Auto-ignition temperature | No data available |
| q) | Decomposition temperature | No data available |
| r) | Viscosity | No data available |

- s) Explosive properties
 - Oxidizing properties No data available

No data available

9.2 Other safety information No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

t)

No data available

- **10.2 Chemical stability** Stable under recommended storage conditions.
- **10.3 Possibility of hazardous reactions** No data available
- **10.4 Conditions to avoid** No data available

10.5 Incompatible materials Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas Other decomposition products - No data available In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Inhalation: No data available(2-Chlorobenzothiazole) Dermal: No data available(2-Chlorobenzothiazole) LD50 Intraperitoneal - Mouse - 200 mg/kg(2-Chlorobenzothiazole)

Skin corrosion/irritation

No data available(2-Chlorobenzothiazole)

Serious eye damage/eye irritation

No data available(2-Chlorobenzothiazole)

Respiratory or skin sensitisation

No data available(2-Chlorobenzothiazole)

Germ cell mutagenicity

No data available(2-Chlorobenzothiazole)

Carcinogenicity

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available(2-Chlorobenzothiazole)

No data available(2-Chlorobenzothiazole)

Specific target organ toxicity - single exposure No data available(2-Chlorobenzothiazole)

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard

No data available(2-Chlorobenzothiazole)

Additional Information RTECS: DL3150000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(2-Chlorobenzothiazole)

12. ECOLOGICAL INFORMATION

- 12.1 Toxicity No data available
- 12.2 Persistence and degradability No data available
- **12.3 Bioaccumulative potential** No data available
- **12.4 Mobility in soil** No data available(2-Chlorobenzothiazole)
- **12.5 Results of PBT and vPvB assessment** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US) Not dangerous goods IMDG Not dangerous goods

IATA Not dangerous goods

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Aldrich- 167576

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

| 2-Chlorobenzothiazole | CAS-No. 615-20-3 | Revision Date |
|-------------------------------------|---------------------|---------------|
| New Jersey Right To Know Components | CAS-No. | Revision Date |
| 2-Chlorobenzothiazole | 615-20-3 | Revision Date |

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

| HMIS Rating Health hazard: Chronic Health Hazard: | 0 |
|---|---|
| Flammability: Physical Hazard | 0 |
| | 0 |
| NFPA Rating | |
| Health hazard: | 0 |
| Fire Hazard: | 1 |
| Reactivity Hazard: | 0 |

Further information

Copyright 2016 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only. 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.

Preparation Information

Sigma-Aldrich Corporation Product Safety – Americas Region 1-800-521-8956 Version: 6.0

Revision Date: 05/28/2017

Print Date: 11/14/2018