SIGMA-ALDRICH

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SAFETY DATA SHEET

Version 5.3 Revision Date 06/27/2014 Print Date 11/10/2018

1. PRODUCT AND COMPANY IDENTIFICATION

| 1.1 | Product identifiers Product name | : | 5-Chloro-2-nitroaniline |
|-----|--------------------------------------|------|---|
| | Product Number Brand Index-No. | : | 269050 Aldrich 610-006-00-0 |
| | CAS-No. | : | 1635-61-6 |
| 1.2 | Relevant identified uses of | f th | e substance or mixture and uses advised against |
| | Identified uses | : | Laboratory chemicals, Manufacture of substances |
| 1 3 | Details of the supplier of t | ho | safatu data shqat |

1.3 Details of the supplier of the safety data sheet

| Company | : | Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA |
|------------------|---|--|
| Telephone Fax | : | +1 800-325-5832 +1 800-325-5052 |

1.4 Emergency telephone number

| Emergency Phone # | : | +1-703-527-3887 (CHEMTREC) |
|-------------------|---|----------------------------|
|-------------------|---|----------------------------|

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Acute toxicity, Oral (Category 2), H300 Acute toxicity, Inhalation (Category 2), H330 Acute toxicity, Dermal (Category 1), H310 Specific target organ toxicity - repeated exposure (Category 2), H373 Acute aquatic toxicity (Category 2), H401 Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

| Hazard statement(s) H300 + H310 + H330 H373 H411 | Fatal if swallowed, in contact with skin or if inhaled May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects. |
|--|--|
| Precautionary statement(s) P260 P262 P264 P270 | Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Do not get in eyes, on skin, or on clothing. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. |

| P271 P273 P280 P284 P301 + P310 | Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/ protective clothing. Wear respiratory protection. IF SWALLOWED: Immediately call a POISON CENTER or doctor/ |
|---|---|
| P302 + P350 | physician. IF ON SKIN: Gently wash with plenty of soap and water. |
| P304 + P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P310 | Immediately call a POISON CENTER or doctor/ physician. |
| P320 | Specific treatment is urgent (see supplemental first aid instructions on this label). |
| P330 | Rinse mouth. |
| P361 | Remove/Take off immediately all contaminated clothing. |
| P363 | Wash contaminated clothing before reuse. |
| P391 | Collect spillage. |
| P403 + P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

| 3.1 | Substances Synonyms | : | 2-Amino-4-chloro-nitrob | penzene | |
|-----|--|---|---|----------------|---------------|
| | Formula Molecular Weight CAS-No. EC-No. Index-No. Hazardous components | | C ₆ H ₅ CIN ₂ O ₂ 172.57 g/mol 1635-61-6 216-661-5 610-006-00-0 | | |
| | Component | | | Classification | Concentration |
| | 5-Chloro-2-nitroaniline | | | | |

| 5-Chloro-2-nitroaniline | | |
|-------------------------|-------------------------------|--|
| | Acute Tox. 2; Acute Tox. 1; - | |
| | STOT RE 2; Aquatic Acute 2; | |
| | Aquatic Chronic 2; H300 + | |
| | H310 + H330, H373, H411 | |

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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. Take victim immediately to hospital. Consult a physician.

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. Consult a physician.

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), Hydrogen chloride gas

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

- 6.3 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.
- 6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. 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.

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses 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.

Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

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. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| a) | Appearance | Form: solid Colour: dark 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: 125 - 129 °C (257 - 264 °F) - dec. |
| f) | Initial boiling point and boiling range | no data available |
| g) | Flash point | no data available |
| h) | Evapouration 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 | no data available | |
|--------------------------|--|-------------------|--|
| 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 | no data available | |
| t) | Oxidizing properties | no data available | |
| Other safety information | | | |

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

9.2

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, Strong bases
- **10.6 Hazardous decomposition products** 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

no data available

no data available

Skin corrosion/irritation no data available

Serious eye damage/eye irritation no data available

Respiratory or skin sensitisation no data available

Germ cell mutagenicity no data available

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 Aldrich - 269050

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

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

no data available

Additional Information

RTECS: Not available

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

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
- **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

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 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.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 2237 Class: 6.1 Proper shipping name: Chloronitroanilines Marine pollutant: No Poison Inhalation Hazard: No Packing group: III

IMDG

UN number: 2237 Class: 6.1 Packing group: III Proper shipping name: CHLORONITROANILINES

EMS-No: F-A, S-A

Marine pollutant: Marine pollutant

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

Full text of H-Statements referred to under sections 2 and 3.

| Acute Tox. Aquatic Acute Aquatic Chronic H300 H300 + H310 + H330 | Acute toxicity Acute aquatic toxicity Chronic aquatic toxicity Fatal if swallowed. Fatal if swallowed, in contact with skin or if inhaled | | |
|---|---|--|--|
| H310 H330 H373 | Fatal in contact with skin. Fatal if inhaled. May cause damage to organs through prolonged or repeated exposure. | | |
| HMIS Rating Health hazard: Chronic Health Haz Flammability: | 4 ard: 0 | | |
| Physical Hazard | 0 | | |
| NFPA Rating Health hazard: Fire Hazard: Reactivity Hazard: | 4 0 0 | | |

Further information

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Preparation Information Sigma-Aldrich Corporation Product Safety – Americas Region 1-800-521-8956

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