1. PRODUCT AND COMPANY IDENTIFICATION

Product name: 3-Chloroaniline
Product Number: C22407
Brand: Aldrich
Supplier: Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63113
USA
Telephone: +1 800-352-5832
Fax: +1 800-352-5892
Emergency Phone # (For both supplier and manufacturer): (314) 776-6505
Preparation Information: Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8996

2. HAZARDS IDENTIFICATION

Emergency Overview:
OSHA Hazards:
Target Organ Effect, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption
Target Organs:
Liver, Kidney, Blood
GHS Classification:
Acute toxicity, Inhalation (Category 2)
Acute toxicity, Dermal (Category 3)
Acute toxicity, Oral (Category 3)
Acute aquatic toxicity (Category 3)
GHS Label elements, including precautionary statements:
Pictogram:
Signal word: Danger
Hazard statement(s):
H301 + H311 Toxic if swallowed or in contact with skin
H351 Fatal if inhaled.
H402 Harmful to aquatic life.
Precautionary statement(s):
P260 Do not breathe dust, fume, gas, mists, vapours, spray.
P280 Wear protective gloves/protective clothing.
P284 Wear respiratory protection.
P310 Immediately call a POISON CENTER or doctor/physician.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component: 3-Chloroaniline
CAS-No.: 108-42-9
EC-No.: 203-561-0
Index-No.: 612-910-00-8

4. 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. Finse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability:
Not flammable or combustible.
Suitable extinguishing media:
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for firefighters:
Wear self-contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
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.
Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE
Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Contains no substances with occupational exposure limit values.
Personal protective equipment
Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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 CE (EU).
Hand protection
Hands 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.
Immersion protection
Material: butyl-rubber
Minimum layer thickness: 0.3 mm
Break through time: > 480 min
Material tested: Butaclip® (Albrecht 2677647, Size M)
Splash protection
Material: Nature latex/chloroprene
Minimum layer thickness: 0.6 mm
Break through time: > 30 min
Material tested: Lapem® (Albrecht 2677558, Size M)
data source: KCL GmbH, D-38124 Eichenberg, phone +49 (6)559 673000, 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 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.
Eye 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 and body protection
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of dangerous substance at the specific workplace.
Hygiene measures
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES
Appearance
Form: clear, liquid
Colour: light yellow

Safety data
pH: no data available
Melting point/freezing point: Melting point/range: -11 - 0 °C (12 - 16 °F) - liq.
Boiling point: 95 - 96 °C (203 - 205 °F) at 15 hPa (11 mmHg) - liq.
Flash point: 118 °C (246 °F) - closed cup
Ignition temperature: no data available
Autoignition temperature: no data available
Lower explosion limit: no data available
Upper explosion limit: no data available
Vapour pressure: no data available
Density: 1.200 g/cm³ at 25 °C (77 °F)
Water solubility: no data available
Octanol/water partition coefficient: no data available
Relative vapour density: no data available
Odour: no data available
Odour threshold: no data available
Evaporation rate: no data available

10. STABILITY AND REACTIVITY
Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions
no data available
Conditions to avoid
no data available
Materials to avoid
acids, Acid chlorides, Acid anhydrides, Chloroformates, Strong oxidizing agents
Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION
Acute toxicity
Oral LD50
LD50 Oral - rat - 256 mg/kg
Inhalation LC50
LC50 Inhalation - mouse - 4 h - 550 mg/m³
Dermal LD50
LD50 Dermal - rat - 250 mg/kg
Other information on acute toxicity
no data available
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
Genotoxicity in vitro - Hamster - Lungs
Mutation in mammalian somatic cells.
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
Teratogenicity no data available
Specific target organ toxicity - single exposure (Globally Harmonized System) no data available
Specific target organ toxicity - repeated exposure (Globally Harmonized System) May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard no data available
Potential health effects
Inhalation Toxic if inhaled. May cause respiratory tract irritation.
Ingestion Toxic if swallowed.
Skin Toxic if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Signs and Symptoms of Exposure
Absorption into the body leads to the formation of methemoglobin which is toxic at high concentrations seen in cyanosis. Onset may be delayed 2 to 4 hours or longer. Nausea, headache, vomiting, confusion, weakness, drowsiness, unconsciousness, ataxia, conjunctivitis, blurred vision, atracardia.
Gastrointestinal effects no data available
Additional Information: RTECS: Not available
12. ECOLOGICAL INFORMATION
Toxicity
Toxicity to fish LC50 - Danio rerio (zebra fish): 18.75 mg/l - 96 h
Toxicity to daphnia and other aquatic invertibrates EC50 - Daphnia magna (Water flea): 0.1 mg/l - 48 h
Toxicity to algae EC50 - Desmodesmus subspectus (green algae): 28 mg/l - 48 h
Persistence and degradability
Biotic/Aerobic
Bioaccumulative potential no data available
Mobility in soil no data available
PBT and vPvB assessment no data available
Other adverse effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.
13. DISPOSAL CONSIDERATIONS
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: 2019 Class: 6.1 Packing group II
Proper shipping name: Chloroanilines, liquid Marine pollutant: No Poison Inhalation Hazard: No
IMDG
UN number: 2019 Class: 6.1 Packing group II EMS-No: F-A, S-A
Proper shipping name: CHLOROANILINES, LIQUID Marine pollutant: No
IATA
UN number: 2019 Class: 6.1 Packing group II
Proper shipping name: Chloroanilines, liquid
15. REGULATORY INFORMATION
OSHA Hazards
Target Organ Effect, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption
SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components
SARA 313: 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
Acute Health Hazards, Chronic Health Hazards
Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right To Know Components

3-Chloroaniline

New Jersey Right To Know Components

3-Chloroaniline

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

Further Information

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