SIGMA-ALDRICH

Material Safety Data Sheet
Version 5.0
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Triphosgene
Product Number: 330752
Brand: Aldrich
Supplier: Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO  63163
USA
Telephone: +1 800-325-5832
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Emergency Phone # (For both supplier and manufacturer): (314) 775-6555
Preparation Information: Sigma-Aldrich Corporation
Product Safety - Americas Region
1-800-521-8856

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards: Highly toxic by inhalation. Corrosive
GHS Classification:
Acute toxicity: Oral (Category 5) Acute toxicity: Inhalation (Category 1)
Skin corrosion (Category 1B) Serious eye damage (Category 1)
GHS Label elements, including precautionary statements
Pictogram: Signal word: Danger
Hazard statement(s):
H303 + H313: May be harmful if swallowed or in contact with skin.
H314: Causes severe burns and eye damage.
H330: Fatal if inhaled.
Precautionary statement(s):
P250: Do not breathe dust, fume, gas, mist or vapour/ spray.
P260: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P264: Wear respiratory protection.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: HMIS Classification:
Health hazard: 4 Flammability: 0 Physical hazards: 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Bis(chloroformyl) carbonate
Formula: C6Cl6O3
Molecular Weight: 296.75 gm/mol
Component: Concentration
Bis(chloroformyl) carbonate
CAS-No. 32315-10-9
EC-No. 260-986-3

4. FIRST AID MEASURES

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

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

In case of skin contact:
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact:
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed:
Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse 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 dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

NFPA Rating:
Health hazard: 4
Fire: 0
Reactivity hazard: 0

Potential Health Effects:
Inhalation: May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin: May be harmful if absorbed through skin. Causes skin burns.
Eyes: Causes eye burns.
Ingestion: May be harmful if swallowed.
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.

7. HANDLING AND STORAGE
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.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: 2 - 8 °C

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 particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a back-up 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 governing standards such as NIOSH (US) or CEN (EU).

Hand protection
Gloves 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.

Eye protection
Face shield and safety glasses.Use equipment for eye protection tested and approved under appropriate governing 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 the 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: solid
Colour: beige

Safety data
pH: no data available
Melting point/freezing point:
Melting point/range: 70 - 83 °C (174 - 181 °F) - lit.
Boiling point: 203 - 206 °C (397 - 403 °F) - lit.
Flash point: no data available
Ignition temperature: no data available
Autoignition temperature: no data available

10. STABILITY AND REACTIVITY
Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
Avoid moisture. Heat.

Materials to avoid
Strong oxidizing agents, acids, Strong bases, Ammonia

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

Other decompositions products - Phosgene

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION
Acute toxicity
Oral LD50
LD50 Oral - rat: > 2,000 mg/kg

Inhalation LC50
no data available

Dermal LD50
LD50 Dermal - rat: > 2,000 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

Genetic cell mutagenicity
no data available

Carcinogenicity
no data available
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. Disperse 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: 2028 Class: 6.1 (8) Packing group II
Proper shipping name: Toxic solids, corrosive, organic, n.o.s. (Bis(trichloromethyl)carbonate)
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
UN number: 2028 Class: 6.1 (8) Packing group II
Proper shipping name: TOXIC SOLID, CORROSI\Ve, ORGANIC, N.O.S. (Bis(trichloromethyl)carbonate)
Marine pollutant: No

IATA
UN number: 2028 Class: 6.1 (8) Packing group II
Proper shipping name: Toxic solid, corrosive, organic, n.o.s. (Bis(trichloromethyl)carbonate)

15. REGULATORY INFORMATION

OSHA Hazards
Highly toxic by inhalation, Corrosive

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: The 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 Hazard

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

Pennsylvania Right To Know Components
CAS No: 32316-10-9

New Jersey Right To Know Components
CAS No: 32316-10-9

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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