


SAFETY DATA SHEET

TRIPHOSGENE

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

1.1 Product identifier:	
CAS Number:	32315-10-9
EC number:	250-986-3.
1.2 SYNONYMS	Triphosgene Bis(trichloromethyl) carbonate Carbonic acid bistrichlor methyl ester.

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
Acute Oral toxicity:	Category 3
Acute Dermal toxicity:	Category 3
Acute inhalation toxicity	Category 2
Skin corrosion/irritation:	Category 1B
Serious eye damage/eye irritation	Category 1
2.2 Label elements:	
Hazard pictograms:	
Signal Word:	Danger
Hazard Statement:	H301 - Toxic if swallowed H311 - Toxic in contact with skin H314 - Causes severe skin burns and eye damage H318 - Causes severe eye damage H330 - Fatal if inhaled
Precautionary Statements	P260 - Do not breathe dust/smoke/gas/smoke/steam/spray

	<p>P264 - Wash face, hands and any exposed skin thoroughly after handling</p> <p>P271 - Use only outdoors or in a well-ventilated area</p> <p>P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection</p> <p>P284 - Wear respiratory protection</p>
Response:	<p>P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting</p> <p>P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower</p> <p>P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing</p> <p>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing</p> <p>P310 - Immediately call a POISON CENTER or doctor/ physician</p> <p>P320 - Specific emergency treatment (see the first aid instructions provided on this label) .</p> <p>P363 - Wash contaminated clothing before reuse</p> <p>Storage</p> <p>P403 + P233 - Store in a well-ventilated place. Keep container tightly closed P405 - Store locked up</p>
Disposal:	<p>P501 - Dispose of contents/ container to an approved waste disposal plant</p>
Health Hazards:	<p>Toxic if swallowed. Toxic in contact with skin. Corrosive. Causes skin and eye burns. Causes serious eye damage. Fatal if inhaled</p>

2.3 Other hazards:	No information found
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SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 32315-10-9 TRIPHOSGENE
Identification number(s):	EC number: 250-986-3.

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician
After Ingestion	DO NOT induce vomiting. Call a physician or Poison Control Center immediately.
After skin contact:	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. Do not let victim rub eyes. Get medical attention.
After swallowing:	If symptoms persist consult doctor.
4.2 Most important symptoms and effects, both acute and delayed	can cause acute symptoms such as respiratory irritation, coughing, and chest pain, followed by potential delayed effects like pulmonary edema and difficulty breathing that may manifest up to 48 hours later.
4.3 Indication of any immediate medical attention and special treatment needed	treatment involves supportive care such as oxygen therapy, potential mechanical ventilation, and monitoring for delayed pulmonary edema, which can develop up to 48 hours post-exposure.

SECTION 5: Firefighting measures

5.1 Extinguishing media	Use water spray, foam, dry chemical, or carbon dioxide (CO ₂) to extinguish fires
5.2 Special hazards arising from the substance or mixture	The product causes burns of eyes, skin and mucous membranes. Contact with water liberates toxic gas
5.3 Advice for firefighters	Wear self-contained breathing apparatus (SCBA) and full protective gear to avoid exposure to any smoke or fumes.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures	Wear self-contained breathing apparatus (SCBA) and full protective gear to avoid exposure to any smoke or fumes.
6.2 Environmental precautions:	Avoid release to the environment. Prevent spills from entering waterways, drains, or soil.
6.3 Methods and material for containment and cleaning up:	Use absorbent materials such as sand, clay, or commercially available absorbent pads.

SECTION 7: Handling and storage

7.1 Precautions for safe handling	Wear suitable gloves, eye protection, and protective clothing to prevent skin and eye contact.
Information about fire - and explosion protection:	handle with care as it is moisture-sensitive and can react violently with water, releasing toxic gases; suitable extinguishing media include dry chemical powder, CO ₂ , or alcohol-resistant foam.
7.2 Conditions for safe storage, including any incompatibilities	Store in a cool, dry place, away from moisture and direct sunlight.
Requirements to be met by storerooms and receptacles:	Ensure adequate ventilation in storage areas to prevent the accumulation of dust.

Information about storage in one common storage facility:	When storing with other chemicals, ensure that they are compatible to prevent adverse reactions.
7.3 Specific end use(s):	No information available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended
8.2 Exposure controls	
Personal protective equipment:	Set up stations equipped with PPE (gloves, goggles, masks) near handling areas to ensure workers can quickly access necessary protective gear.
General protective and hygienic measures:	Wash hands thoroughly after handling and avoid eating, drinking, or smoking in areas.
	Respiratory protection: Required.
Protection of hands:	The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Use gloves made of butyl rubber (butyl) - 0.7 mm coating thickness, chloroprene rubber (CR) - 0.5 mm coating thickness, fluoroelastomer (FKM) - 0.7 mm coating thickness
	Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
Penetration time of glove material:	The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
	Eye protection: Required

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Information	
Appearance: Form:	Solid
Colour:	White
Odour:	Musty odor
pH-value:	No information available
Melting point/Melting range:	77 - 81 °C / 170.6 - 177.8
Boiling point/Boiling range:	203 - 206 °C / 397.4 - 402.8 ° F
Flammability (solid, gaseous):	No information available
Ignition temperature:	No information available
Decomposition temperature:	>350°C
Self-igniting:	No information available
Danger of explosion:	No information available
Explosion limits: Lower:	No information available
Vapour pressure:	16 mbar @ 90 °C
Density at 20 °C:	1.78 g/cm ³
Relative density:	1.78 g/cm ³
Vapour density:	6.5
Evaporation rate:	0.3 mmHg at 25 °C (approx.)
Solubility in / Miscibility with- water at 20 °C:	
Partition coefficient(n- octanol/water):	practically insoluble in water
Viscosity:	No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity	Heat sensitive. Moisture sensitive. Contact with water liberates toxic gas.
10.2 Chemical stability	stable at room temperature
10.3 Possibility of hazardous reactions	May release phosgene and hydrochloric acid when contact with water.
10.4 Conditions to avoid	To avoid thermal decomposition, do not overheat. Excess heat. Incompatible products. Exposure to moist air or water.
10.5 Incompatible materials:	Acids. Strong oxidizing agents. Strong bases. Amines.

10.6 Hazardous decomposition products:	Hydrogen chloride gas. Carbon monoxide (CO). Carbon dioxide (CO ₂). Chlorine. Phosgene
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SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute toxicity:	LD50 Oral: >2000mg/kg (rat)
	LD50 Dermal: 2000mg/kg (rat)
	LC50 Inhalation: 41.5 mg/m ³ (rat) 4h
skin corrosion/irritation:	Category 1
respiratory or skin sensitization:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No carcinogenic chemicals found
Reproductive toxicity:	No data available
STOT- single exposure:	No data available
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available
11.2 Information on other hazards	No information available
Symptoms / effects, both acute and delayed:	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated

SECTION 12: Ecological information

12.1 Toxicity:	Do not empty into drains
12.2 Persistence and degradability:	May persist, based on information available
12.3 Bioaccumulative potential:	May have some potential to bioaccumulate
12.4 Mobility in soil:	Spillage unlikely to penetrate soil
12.5 Other adverse effects	Not available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging: Recommendation:	Dispose of this container to hazardous or special waste collection point
Recommended cleansing agents:	Water, sodium bicarbonate(aqueous), toluene or chloroform.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	UN2928
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	6.1
14.4 Packing group · ADR, IMDG, IATA:	2
14.5 Environmental hazards:	Yes
14.6 Special precautions for user	See section 2.2
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	IBC02

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	classified as a substance under CLP regulation.
Named dangerous substances	ANNEX I Substance is listed
15.2 Chemical safety assessment:	No data available

SECTION 16: Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to

ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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