According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

Triphosgene

Version number: 2.0
Issued: 2024-03-01

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

1.1. Product identifier

Trade name
Triphosgene

CAS number
32315-10-9

EC number
250-986-3

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

Relevant identified uses
Research and development. Laboratory Chemicals. Manufacture of substances.

Not suitable for use in
Not suitable for human consumption or veterinary purposes.

1.3. Details of the supplier of the safety data sheet

Supplier
Molekula Group

Address
Molekula Ltd, Lingfield Way, Darlington,
DL1 4XX Darlington
United Kingdom

Telephone
+44 (0) 3302 000 333

Email
info@molekula.com

Web site
www.molekula.com

Contact person
Kevin Banks

Email
+44 (0) 7769276927

1.4. Emergency telephone number

Poison center/Additional emergency number
0344 892 0111 - National Poisons Information Service (Newcastle Centre)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classification

Skin corrosion, hazard category 1B
Acute toxicity, inhalation, hazard category 1

Hazard statements

H314, H330

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.
H330 Fatal if inhaled.

Supplemental hazard statements

EUH029 Contact with water liberates toxic gas.

Precautionary statements

P260 Do not breathe dust.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284 wear respiratory protection.
P310 Immediately call a POISON CENTER/doctor.
P363 Wash contaminated clothing before reuse.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
Triphosgene	32315-10-9 250-986-3 - -	100%	Skin Corr. 1B, Acute Tox. 1 - inhalation	H314, H330 - -	-

Molecular weight
296.75

Substance additional information
For the complete text of H- / EUH-statements mentioned in this section, see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

IF exposed or concerned: Get medical advice/attention. First aiders/ medical personnel need to protect themselves. Show this Safety Data Sheet (SDS) to medical personnel.

Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If breathing stops, provide artificial respiration. For breathing difficulties oxygen may be necessary.

Skin contact
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Immediately call a POISON CENTER/doctor.

Eye contact
Remove contact lenses if present. Rinse eyes with water. Continue to rinse for at least 15 minutes and seek medical attention. Get medical attention immediately!

Ingestion
IF SWALLOWED: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only if the persons are fully conscious and awake). Administer activated charcoal (20 - 40g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

Information for doctors
No data available.

4.2. Most important symptoms and effects, both acute and delayed

The severity of the symptoms described will vary dependant of the concentration and the length of exposure. Causes burns by all exposure routes.
See section 11 for more detailed information on health effects and symptoms.

Inhalation

Single exposure may cause the following adverse effects: Causes severe burns. Difficulty in breathing. Unconsciousness, possibly death.

Skin contact

Single exposure may cause the following adverse effects: Causes severe burns. Blistering may occur. May be absorbed in the body and cause dizziness, nausea and vomiting. Unconsciousness, death.

Eye contact

Single exposure may cause the following adverse effects: Causes serious eye damage. Unconsciousness, possibly death.

Ingestion

Single exposure may cause the following adverse effects: Severe abdominal pain. May cause severe internal injury. Unconsciousness, possibly death.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Immediately call a POISON CENTER/doctor.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide or dry powder.

Unsuitable extinguishing media

Foam. Water.

5.2. Special hazards arising from the substance or mixture

Specific hazards: Corrosive.
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Carbon monoxide (CO). Carbon dioxide (CO_2). Hydrogen chloride (HCl). Combustible.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Evacuate area. Avoid breathing gas, fume, vapours or spray. Prevent skin contact by maintaining a safe distance and by wearing suitable protective equipment/ clothing. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Do not breathe vapour/spray. Avoid contact with skin and eyes. For personal protection, see section 8.
In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Collect with absorbent, non-combustible material into suitable containers. Avoid dust formation.

6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Preventive handling precautions

For precautions see section 2.2.

General hygiene

Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Store in a dry place. Store in a closed container. Recommended storage temperature: 2 to 8°C (35.6 to 46.4°F)

Air and moisture sensitive. Store under inert gas.

7.3. Specific end use(s)

No specific usage precautions noted.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available

8.2. Exposure controls

Personal Protective Equipment Symbols

Eye / face protection

Wear eye protection.

Hand protection
Wear protective gloves. Recommended gloves: Nitrile.
Glove Thickness: 0.11mm
Breakthrough time: 480 minutes

Always inspect gloves before use. If signs of wear and tear are noticed then the gloves should be replaced.

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. Wash contaminated skin thoroughly after handling.

Other skin protection
Wash skin thoroughly after handling.

Respiratory protection
Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided.

Environmental exposure controls
Avoid discharge into drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Solid

Colour
Beige.

Odour
No data available

Melting point / freezing point
77 - 82 °C

Boiling point or initial boiling point and boiling range
203 - 206 °C

Flammability
No data available

Lower and upper explosion limit
No data available

Flash point
No data available

Auto-ignition temperature
No data available

Decomposition temperature
No data available

pH
No data available

Kinematic viscosity
No data available

Solubility
No data available

Partition coefficient n-octanol/water
No data available

Vapour pressure
No data available

Density and/or relative density
1.6 g/cm³
Method
(20°C)

Relative vapour density
No data available

Particle characteristics
No data available

9.2. Other information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity
The following applies in general to flammable organic substances and mixtures: when finely distributed, the risk of a dust explosion may be assumed.

10.2. Chemical stability
Stable under the prescribed storage conditions.

Contact with water liberates toxic gas.
Heat sensitive.
Moisture Sensitive.

10.3. Possibility of hazardous reactions

Generates dangerous gases or fumes in contact with: Alcohols Alkalines Amides. Amines. ferric oxide Water.

10.4. Conditions to avoid

Avoid: Moisture, heating and strong oxidising substances.

10.5. Incompatible materials

Acids. Amines. Strong bases Strong oxidising agents. Water.

10.6. Hazardous decomposition products

See section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Duration of exposure	Test animals
Triphosgene 32315-10-9 / 250-986-3	Acute Toxicity (Oral LD50):	2000 mg/kg	-	Rat
Triphosgene 32315-10-9 / 250-986-3	Acute Toxicity (Dermal LD50):	2000 mg/kg	-	Rat
Triphosgene 32315-10-9 / 250-986-3	Acute Toxicity (Inhalation LC50):	0.005 mg/l (dust/mist)	4 hours	Rat

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

No data available

SECTION 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

No data available

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations

Dispose of contents/container in accordance with local regulations.

SECTION 14: Transport information

14.1. UN number

2928

14.2. UN proper shipping name

ADR / RID / ADN proper shipping name

TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S. (Triphosgene)

IMDG proper shipping name

TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S. (Triphosgene)

IATA proper shipping name

Toxic solid, corrosive, organic, n.o.s. (Triphosgene)

Triphosgene

14.3. Transport hazard class(es)

Label

ADR/RID/ADN

6.1 *8*

IMDG

6.1 *8*

IATA

6.1 *8*

ADR / RID Class

6.1

ADR / RID Classification code

TC2

ADR / RID hazard identification number

68

IMDG Class

6.1 (8)

IATA Class

6.1 (8)

ADN Class

6.1

ADN Class Code

TC2

Triphosgene

14.4. Packing group

ADR / RID / ADN: II
IMDG: II
IATA: II

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Special precautions for user

Tunnel restriction code: D/E
Transport category: 2

IMDG EmS

F-A, S-B

14.7. Maritime transport in bulk according to IMO instruments

IBC Instruction: IBC06

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

This SDS is not mandated under REACH Regulation (EC) No 1907/2006 and is provided for information only. Directive: 2012/18/EU

National regulations

No data available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Phrase meaning

Acute Tox. 1 - inhalation - Acute toxicity, inhalation, hazard category 1
Skin Corr. 1B - Skin corrosion, hazard category 1B
H314 Causes severe skin burns and eye damage.
H330 Fatal if inhaled.
EUH029 Contact with water liberates toxic gas.