

Safety Data Sheet

#12038521 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Chloramine T trihydrate	7080-50-4	C7H7ClNNaO2S·3H2O	10	19 Oct 2026

SECTION 1

Identification

1.1 Product identifier

Product name Chloramine T trihydrate

CAS number 7080-50-4

EC / EINECS number 615-172-8

Chemical formula C7H7ClNNaO2S·3H2O

Molecular weight 281.69

SMILES CC1=CC=C(C=C1)S(=O)(=O)[N-]Cl.O.O.O.[Na+]

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

Research and development; not suitable for human consumption or veterinary purposes.

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Acute Tox. 4 (oral), H302

Skin Corr. 1B, H314

Eye Dam. 1, H318

Resp. Sens. 1, H334

Aquatic Acute 2, H401

2.2 Label elements



DANGER

CODE	HAZARD STATEMENT
------	------------------

EUH031	Contact with acids liberates toxic gas
---------------	--

H302	Harmful if swallowed
-------------	----------------------

H314 (sub cat. 1B)	Causes severe skin burns and eye damage
---------------------------	---

H318	Causes serious eye damage
-------------	---------------------------

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
-------------	---

H401	Toxic to aquatic life
-------------	-----------------------

CODE	PRECAUTIONARY STATEMENT
------	-------------------------

P260	Do not breathe dust/fume/gas/mist/vapours/spray
-------------	---

P273	Avoid release to the environment
-------------	----------------------------------

P280	Wear protective gloves/protective clothing/eye protection/face protection
-------------	---

P301+312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
-----------------	---

P303+361	IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse with water/shower
-----------------	---

P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
-----------------	---

P305+351+338	IF IN EYES: Rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
---------------------	---

2.3 Other hazards

This product does not contain any known or suspected Endocrine disruptors. Does not contain components considered to be persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

SECTION 3

Composition / information on ingredients**3.1 Substances**

Name	Chloramine T trihydrate
CAS number	7080-50-4
EC number	615-172-8
Concentration / purity	~100.0%
Classification according to Regulation (EC) No 1272/2008	Acute Tox. 4 (oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Aquatic Acute 2, H401
Hazard statements	EUH031, H302, H314 (sub cat. 1B), H318, H334, H401
Acute toxicity estimate (ATE)	None reported
Impurities / stabilising additives	<i>Not applicable</i>

SECTION 4

First-aid measures**4.1 Description of first aid measures**

Inhalation	Remove person to fresh air and keep comfortable for breathing; immediately call a poison center/doctor; give artificial respiration if breathing stops and oxygen if breathing is difficult.
Skin contact	Take off immediately all contaminated clothing, rinse skin with water or shower, and immediately call a poison center/doctor.
Eye contact	Remove contact lenses if present and rinse eyes with water for at least 15 minutes; seek medical attention.
Ingestion	Give water to drink (two glasses at most) and seek medical advice immediately; induce vomiting only in exceptional cases if no medical care within one hour and person is fully conscious; give activated charcoal; do not attempt to neutralise.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe burns by all exposure routes, serious eye damage, breathing difficulty, blistering, dizziness, nausea, vomiting, severe abdominal pain and 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

Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media No limitation of extinguishing media given.

5.2 Special hazards arising from the substance or mixture

Non-combustible; fire may liberate CO, CO₂, NO_x, SO_x, hydrogen chloride gas and sodium oxides; explosive mixtures may form at elevated temperatures; vapours may accumulate in low-lying areas.

5.3 Advice for firefighters

Evacuate area, avoid breathing fumes, wear suitable protective equipment, keep safe distance and cool exposed containers with water spray.

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe dust or mist; avoid contact with skin and eyes; see section 8 for personal protection.

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, avoiding dust formation.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Work under hood, do not inhale substance, change contaminated clothes immediately and wash skin thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature Ambient

Conditions for safe storage (incompatibilities) Store dry in a closed container under inert gas in a locked, well-ventilated room, isolated from acids; air sensitive; storage class 8A.

7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection**8.1 Control parameters**

Occupational exposure limits (OEL / WEL) No occupational exposure limit assigned.

DNEC/PNEC data DNEL/DMEL: Not reported
PNEC: Not reported

8.2 Exposure controls

Eye / face protection Chemical splash goggles
Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.

Skin / hand protection Wear nitrile protective gloves (thickness 0.11 mm, breakthrough time 480 min); inspect before use and replace if worn.

Respiratory protection Full-face respirator
Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.

Other protection Wash skin thoroughly after handling; good personal hygiene practices advisable.

Environmental exposure controls Avoid discharge into drains.

SECTION 9

Physical & chemical properties**9.1 Information on basic physical and chemical properties**

Appearance / physical state Solid
DERIVED FROM: LITERATURE

Colour White / off-white
DERIVED FROM: LITERATURE

Odour Characteristic
DERIVED FROM: LITERATURE

Melting / freezing point 167 - 177 °C
DERIVED FROM: LITERATURE

Boiling point No data available

Flammability No data available

Lower and upper explosion limit No data available

Flash point Not applicable

Auto-ignition temperature No data available

Decomposition temperature No data available

pH	8 - 10 (50 g/l, 20 °C) DERIVED FROM: LITERATURE
Acidity	Base DERIVED FROM: LITERATURE
Kinematic viscosity	<i>No data available</i>
Solubility	Water: 150 g/l (25 °C) DERIVED FROM: LITERATURE
Partition coefficient n-octanol/water (log value)	<i>No data available</i>
Vapour pressure	<i>No data available</i>
Density (g/mL)	1 g/mL DERIVED FROM: LITERATURE
Relative vapour density	<i>No data available</i>
Particle characteristics	<i>No data available</i>

9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

Formation of explosive mixtures on heating (15 K below flash point rated critical); contact with acids liberates toxic gas.

10.2 Chemical stability

Stable under the prescribed storage conditions.

10.3 Possibility of hazardous reactions

Violent reaction with strong oxidising agents; generates dangerous gases or fumes in contact with acids.

10.4 Conditions to avoid

Heating.

10.5 Incompatible materials

Strong oxidising agents; acids.

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 (LD50 / LC50) Oral LD50 (rat): 935 mg/kg; Inhalation LC50 (rat, 4 h): 275 mg/m³; Dermal LD50 (rat): 2020 mg/kg; classification criteria not met.

Skin corrosion / irritation	Classification criteria not met; external MSDS reports skin burns (rabbit, 4 h).
Eye corrosion / irritation	Classification criteria not met; external MSDS reports serious eye damage (rabbit, 72 h).
Respiratory / skin sensitisation	Classification criteria not met; external MSDS reports may cause allergy or asthma symptoms or breathing difficulties if inhaled.
Carcinogenicity	Based on available data, the classification criteria are not met.
Mutagenicity	Classification criteria not met; Ames test and in vitro mouse lymphoma gene mutation test negative.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT (single / repeated exposure)	STOT single and repeated exposure: classification criteria not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Does not contain any known or suspected endocrine disruptors.

SECTION 12

Ecological information

12.1 Toxicity

Fish LC50 (96 h): rainbow trout 1.63-2.19 mg/l, guppy 31 mg/l, fathead minnow 6.52-7.51 mg/l; algae ErC50 (96 h) 13 mg/l; Daphnia magna EC50 (48 h) 4.5 mg/l, NOEC (21 d) 1.1 mg/l; activated sludge EC50 (3 h) 37 mg/l; fathead minnow NOEC (35 d) 1.5 mg/l.

12.2 Persistence and degradability

Readily biodegradable (92% aerobic degradation in 28 days).

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

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with local regulations.

SECTION 14

Transport information

14.1 UN number or ID number

UN3263

14.2 UN proper shipping name

CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.

14.3 Transport hazard class(es)

8



14.4 Packing group

II

14.5 Environmental hazards

Yes

14.6 Special precautions for user

Special precautions for user Tunnel restriction code: E; Transport category: 2; IMDG EmS: F-A, S-B

Transport category 2

Tunnel code (E)

Packing instruction (ADR) P002

Packing instruction (IMDG) P002

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

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

Substance-specific regulations (e.g. licences)	No data available on national regulations
--	---

REACH code	Y110
------------	------

ECHA notification	<i>Not applicable</i>
-------------------	-----------------------

15.2 Chemical safety assessment

No

SECTION 16

Other information

Revision notes / other information	This version (v10) was created on 19.10.2026 and replaces version 2, issued 2025-09-16; classifications: Aquatic Acute 2, Eye Dam. 1, Skin Corr. 1B, Resp. Sens. 1, Acute Tox. 4 (oral); H302, H314, H318, H334, H401, EUH031.
------------------------------------	--

This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.