

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



Revision date 26-Feb-2023

Revision Number 1

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

1.1. Product identifier

Product Name CHLORIGAL T

Product Code(s) BV.7008.V.1____ISR

Chemical name Tosylchloramide sodium (Sodium p-toluenesulfonchloramide, trihydrate)

Pure substance/mixture Substance

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

Recommended use Biocide; For professional users only

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Tapazol Chemical Works Ltd.
1st HaSolela st.
West. Ind. Zone
Beit Shemesh, Israel 9905415
Tel: +972-2-992-6040
Fax: +972-2-9926050
For further information, please contact sds@tapazol.co.il

1.4. Emergency telephone number

Emergency Telephone +972 4 777 1900
National Institute for Information on Poisoning
Rambam Health Care Campus, Haifa, Israel

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 1 Sub-category B - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Respiratory sensitization	Category 1 - (H334)

2.2. Label elements

Contains Tosylchloramide sodium (Sodium p-toluenesulfonchloramide, trihydrate)

**Signal word**

Danger

Hazard statements

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

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

EUH031 - Contact with acids liberates toxic gas

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Precautionary Statements - EU (§28, 1272/2008)

P102 - Keep out of reach of children

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

P273 - Avoid release to the environment

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

P284 - In case of inadequate ventilation wear respiratory protection

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]

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

P310 - Immediately call a POISON CENTER or doctor

P331 - Do NOT induce vomiting

P363 - Wash contaminated clothing before reuse

P391 - Collect spillage

P501 - Dispose of contents/ container to an approved waste disposal plant

Additional information

SP1 - Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards**SECTION 3: Composition/information on ingredients****3.1 Substances**

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Tosylchloramide sodium (Sodium p-toluenesulfonchloramide, trihydrate)	204-854-7	127-65-1	100	Acute Tox. 4 (H302) Skin Corr. 1B (H314) Resp. Sens. 1 (H334) EUH031

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention. May cause allergic respiratory reaction. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention. May cause an allergic skin reaction.
Ingestion	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention. May produce an allergic reaction.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information.

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

Symptoms	Burning sensation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. May cause sensitization in susceptible persons. Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Small Fire	Dry chemical, CO ₂ , water spray or regular foam.
Large Fire	Water spray, fog or regular foam Dike fire-control water for later disposal Move containers from fire area if you can do it without risk
Unsuitable extinguishing media	Unstable in contact with water vapour.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. Product is or contains a sensitizer. May
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cause sensitization by inhalation and skin contact.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other information

Refer to protective measures listed in Sections 7 and 8.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions

Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections

See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Provide extract ventilation to points where emissions occur. Remove contaminated clothing and shoes.

General hygiene considerations

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Protect from moisture. Store locked up. Store away from other materials.

7.3. Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure Limits**

Chemical name	European Union	Austria	Belgium	Netherlands	Bulgaria
Tosylchloramide sodium (Sodium p-toluenesulfonchloramid e, trihydrate) 127-65-1	-	-	-	-	TWA: 1.0 mg/m ³

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

8.2. Exposure controls**Personal protective equipment**

Eye/face protection	Tight sealing safety goggles. Face protection shield.
Hand protection	Wear suitable gloves. Impervious gloves.
Skin and body protection	Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	White or slightly yellow crystals or crystalline powder.
Physical state	solid
Odor	Slight odor of chlorine.

Property	Values	Remarks • Method
pH	9.0 - 11	
pH (as aqueous solution)		
Melting point / freezing point	170 - 177 °C	Decomposes.
Boiling point / boiling range		
Flash point	192 °C	
Evaporation rate	No data available.	
Flammability (solid, gas)	No data available.	
Flammability Limit in Air		

Upper flammability or explosive limits	No data available.
Lower flammability or explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	1430 kg/m ³
Water solubility	Soluble in water
Solubility(ies)	Insoluble in benzene, chloroform, and ether; decomposed by alcohol.
Partition coefficient	No data available.
Autoignition temperature	No data available.
Decomposition temperature	
Kinematic viscosity	No data available.
Dynamic viscosity	No data available.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable under ordinary conditions of use and storage.

10.2. Chemical stability

Stability Unstable in contact with water vapour. Contact with acids liberates toxic gas.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Incompatible materials, water vapour, acids. Heat, flame, ignition sources, strong acids and bases.

10.5. Incompatible materials

Incompatible materials Acids. Bases. Oxidizing agent.

10.6. Hazardous decomposition products

Hazardous decomposition products When heated to decomposition it emits toxic fumes of /hydrogen chloride, nitrogen oxides, sulfur oxides, and sodium oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Oral LD50	935 mg/kg. Acute Tox. 4 (H302) Classification based on test data.
Dermal LD50	No data available. Not classified as dermal toxicant.
Inhalation LC50	> 0.27 mg/l air 4 h. Based on available data, the classification criteria are not met.
Skin corrosion/irritation	H314 - Causes severe skin burns and eye damage Classification based on test data. Moistened powder.

Serious eye damage/eye irritation H318 - Causes serious eye damage. Classification based on test data. Moistened powder.

Respiratory or skin sensitization H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. Classification based on test data.

Germ cell mutagenicity Not classified. Based on available data, the classification criteria are not met.

Chemical name	European Union
Tosylchloramide sodium (Sodium p-toluenesulfonchloramide, trihydrate)	Not classified

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

Chemical name	European Union
Tosylchloramide sodium (Sodium p-toluenesulfonchloramide, trihydrate)	Not classified

Reproductive toxicity Not classified. Based on available data, the classification criteria are not met.

Chemical name	European Union
Tosylchloramide sodium (Sodium p-toluenesulfonchloramide, trihydrate)	Not classified

STOT - single exposure Not classified. Based on available data, the classification criteria are not met.

STOT - repeated exposure Not classified. Based on available data, the classification criteria are not met.

Aspiration hazard Not classified. Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity No data available. Not classified as environmental toxicant.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Tosylchloramide sodium (Sodium p-toluenesulfonchloramide, trihydrate)	No data available.	LC50: = 31 mg/L, 96hsemi-static (Poeciliareticulata)LC50: 20.2 - 26.2 mg/L, 96hflow-through (Oncorhynchusmykiss)L C50: 1.63 - 2.19 mg/L, 96hstatic (Oncorhynchusmykiss)L C50: 6.52 - 7.51 mg/L, 96hstatic (Pimephalespromelas)	-	No data available.

12.2. Persistence and degradability

Persistence and degradability Readily biodegradable (At low concentrations).

12.3. Bioaccumulative potential

Bioaccumulation No data available.

Bioconcentration factor (BCF) No data available.

12.4. Mobility in soil

Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Tosylchloramide sodium (Sodium p-toluenesulfonchloramide, trihydrate)	The substance is not PBT / vPvB

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IMDG

14.1 UN number 3263
 14.2 UN proper shipping name Corrosive solid, basic, organic, n.o.s. [Sodium p-toluenesulfonchloramide]
 14.3 Transport hazard class(es) 8
 14.4 Packing group III
 14.5 Marine pollutant Not applicable
 Environmental hazards No
 14.6 Special precautions for user
 Special Provisions None
 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

RID

14.1 UN number 3263
 14.2 UN proper shipping name Corrosive solid, basic, organic, n.o.s. [Sodium p-toluenesulfonchloramide]
 14.3 Transport hazard class(es) 8
 14.4 Packing group III
 14.5 Environmental hazards No
 14.6 Special precautions for user
 Special Provisions None

ADR

14.1 UN number 3263
 14.2 UN proper shipping name Corrosive solid, basic, organic, n.o.s. [Sodium p-toluenesulfonchloramide]
 14.3 Transport hazard class(es) 8
 14.4 Packing group III
 14.5 Environmental hazards No
 14.6 Special precautions for user
 Special Provisions None
 Tunnel restriction code E

IATA

14.1 UN number	3263
14.2 UN proper shipping name	Corrosive solid, basic, organic, n.o.s. [Sodium p-toluenesulfonchloramide]
14.3 Transport hazard class(es)	8
14.4 Packing group	III
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****France****Occupational Illnesses (R-463-3, France)**

Chemical name	French RG number	Title
Tosylchloramide sodium (Sodium p-toluenesulfonchloramide, trihydrate) 127-65-1	RG 66	-

Germany

Water hazard class (WGK) Obviously hazardous to water (WGK 2)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AICS	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

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

Legend

SVHC: Substances of Very High Concern for Authorization:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure

H302 - Classification based on test data

H314 - Classification based on test data

H318 - Classification based on test data

H334 - Classification based on test data

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Revision date

26-Feb-2023

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet