

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

1.1. Product identifier

Product form	: Substance
Name	: Tosylchloramide sodium
Trade name	: Halamid®
EC-No.	: 204-854-7
CAS-No.	: 7080-50-4
Synonyms	: Chloramine T
Other means of identification	: CAS-No. 127-65-1 (anhydrous form not commercially available)

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

1.2.1. Relevant identified uses

Industrial/Professional use spec	: Industrial use Professional uses
Use of the substance/mixture	: Disinfectant Biocidal products Fine chemicals

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Axcentive SARL
Chemin de Champouse
13320 Bouc Bel Air - France
T +33 442 694 090 - F +33 442 694 099
info@axcentive.com

Supplier

Axcentive Asia Pte Ltd
13 Lorong 8 Toa Payoh
#07-01 Braddell Tech Park
319261 Singapore
T +65 6258 6338 - F +65 6258 6901
info@axcentive.com

1.4. Emergency telephone number

Emergency number	: GLOBAL INCIDENT RESPONSE HOTLINE (ACCESS CODE: 333881): Europe: +44-2035147487, North-America: 1.866.519.4752, South-America: 1.760.476.3962, Asia Pacific: +86-4001203572, Middle East/Africa: 1-760-476-3959, Australia: +61-280363166, New Zealand: +64 800 451719
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Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Health Service (NHS)		111 999 (in life-threatening emergencies)	
Wales	National Health Service (NHS)		0845 46 47	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 1, Sub-Category 1B	H314

Halamid®

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Respiratory sensitisation, Category 1

H334

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Harmful if swallowed. Causes severe skin burns and eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

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

Precautionary statements (CLP)

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

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

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water .

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.

EUH-statements

: EUH031 - Contact with acids liberates toxic gas.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sodium p-toluenesulfonchloramide, trihydrate	(CAS-No.) 7080-50-4 (EC-No.) 204-854-7 (EC Index-No.) 616-010-00-9 (REACH-no) 01-2120772085-53	100	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Resp. Sens. 1, H334

Full text of H-statements: see section 16

Comments

: Also listed as the anhydrous form (CAS No. 127-65-1) which is not commercially available

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Avoid contact with skin, eyes and clothing. First aider: Pay attention to self-protection!. Call a physician immediately.

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a physician immediately.

First-aid measures after skin contact

: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.

Halamid®

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

First-aid measures after eye contact	: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Seek medical attention immediately. Rinse mouth with water. Drink plenty of water. Do not induce vomiting.

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

Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Symptoms/effects after skin contact	: Burns. irritation (itching, redness, blistering).
Symptoms/effects after eye contact	: Burns. irritation (itching, redness, blistering).
Symptoms/effects after ingestion	: Causes severe burns. Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: None.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released. Thermal decomposition generates: Nitrogen oxides, Sulphur oxides, Hydrogen chloride.
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5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Shovel or sweep up and put in a closed container for disposal. Avoid dust formation. Ventilate the area thoroughly. Clean contaminated surfaces with an excess of water.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust. Wear personal protective equipment. Refer to section 8.2. Keep away from: heat, sparks, flames.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store tightly closed in a dry and cool place. Store in a well-ventilated place. Protect from sunlight.
Incompatible materials	: Acids. Moisture.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Additional information	: No information available
No additional information available	

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Tosylchloramide sodium (7080-50-4)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	13.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	19.1 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	1.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	5.65 mg/m³
Long-term - systemic effects, dermal	8.1 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.11 mg/l
PNEC (STP)	
PNEC sewage treatment plant	0.057 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Use at industrial sites: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Halamid®

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

8.2.2. Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.

8.2.2.1. Eye and face protection

Eye protection:

Safety goggles

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves. Unsuitable materials: Leather protective gloves, Textiles

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Protective gloves	Natural rubber, Nitrile rubber (NBR), Butyl rubber, Polyvinylchloride (PVC)	6 (> 480 minutes)	0.5		EN 374

8.2.2.3. Respiratory protection

Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

Device	Filter type	Condition	Standard
Dust mask, Half-face mask (DIN EN 140)	Type P2, White	Measures in case of dust release	

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: White
Appearance	: Crystalline powder
Molecular mass	: 281.5 g/mol
Odour	: Chlorine, (slight)
Odour threshold	: Not available
Melting point	: 165 °C (Decomposes)
Freezing point	: Not applicable
Boiling point	: Decomposes
Flammability	: Non flammable.
Explosive properties	: Not explosive
Explosive limits	: Not applicable
Flash point	: 192 °C (closed cup)
Auto-ignition temperature	: 600 °C (101 kPa)
Decomposition temperature:	: > 165 °C (OECD 102 method)

Halamid®

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

pH	: Not relevant
pH solution	: 8 – 10.3 (@5%)
Viscosity, kinematic	: Not relevant
Viscosity, dynamic	: Not relevant
Solubility	: Water: 150 g/l (25°C) Ethanol: 75 g/l (20°C)
Partition coefficient n-octanol/water (Log Pow)	: -1.3 (20°C)
Vapour pressure	: ≈ 0 Pa (25°C)
Density	: Not available
Relative density	: 1.401
Relative vapour density at 20 °C	: Not relevant
Particle characteristics	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Oxidising properties	: Non oxidizing
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9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1)	: Not relevant
Other properties	: Dissociation constant pKa 4.6 (@25°C)

SECTION 10: Stability and reactivity

10.1. Reactivity

Contact with acids liberates toxic gas.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from: heat, sparks, flames.

10.5. Incompatible materials

Acids. Moisture.

10.6. Hazardous decomposition products

Chlorine. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Sodium p-toluenesulfonchloramide, trihydrate (7080-50-4)

LD50 oral rat	> 381.6 mg/kg bodyweight (OECD 401 method)
LD50 dermal rat	> 2000 mg/kg (8% solution)
LC50 Inhalation - Rat	> 0.275 mg/l/4h (max. attained concentration)

Skin corrosion/irritation	: Causes severe skin burns. Aqueous solution. Not irritating @ ≤8% pH: Not relevant
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Halamid®

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Serious eye damage/irritation	: Causes serious eye damage. Aqueous solution. Not irritating @ ≤8% pH: Not relevant
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

Tosylchloramide sodium (7080-50-4)

Viscosity, kinematic	Not relevant
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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2 Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Sodium p-toluenesulfonchloramide, trihydrate (7080-50-4)

LC50 fish 1	100 mg/l
EC50 Daphnia 1	4.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
ErC50 (algae)	13 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata)
NOEC chronic fish	> 1.1 mg/l (Exposure time: 35 d - Species: Pimephales promelas)
NOEC chronic crustacea	> 1.1 mg/l (Exposure time: 21 d - Species: Daphnia magna)
NOEC chronic algae	> 3 mg/l

12.2. Persistence and degradability

Tosylchloramide sodium (7080-50-4)

Persistence and degradability	Readily biodegradable.
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12.3. Bioaccumulative potential

Tosylchloramide sodium (7080-50-4)

Partition coefficient n-octanol/water (Log Pow)	-1.3 (20°C)
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Tosylchloramide sodium (7080-50-4)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

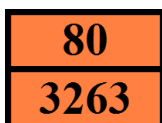
ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 3263	UN 3263	UN 3263	UN 3263	UN 3263
14.2. UN proper shipping name				
CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (Sodium p- toluenesulfonchloramide, trihydrate)	CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (Sodium p- toluenesulfonchloramide, trihydrate)	Corrosive solid, basic, organic, n.o.s. (Sodium p- toluenesulfonchloramide, trihydrate)	CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (Sodium p- toluenesulfonchloramide, trihydrate)	CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (Sodium p- toluenesulfonchloramide, trihydrate)
14.3. Transport hazard class(es)				
8	8	8	8	8
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Transport regulations (ADR) : No additional information available

Orange plates :



Transport by sea

Transport regulations (IMDG) : No additional information available

Air transport

Transport regulations (IATA) : No additional information available

Inland waterway transport

Transport regulations (ADN) : No additional information available

Halamid®

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Rail transport

Transport regulations (RID) : No additional information available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Tosylchloramide sodium is not on the REACH Candidate List

Tosylchloramide sodium is not on the REACH Annex XIV List

Tosylchloramide sodium is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Tosylchloramide sodium is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

A chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Full Layout. Ecological information.

Section	Changed item	Change	Comments
12.	Biodegradability	Added	

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
LC50	Median lethal concentration
LD50	Median lethal dose
NOEC	No-Observed Effect Concentration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
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Halamid®

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
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.

Safety Data Sheet applicable for regions : IE - Ireland;GB - United Kingdom

SDS EU (REACH Annex II) - RHDHV

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.