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Version 4  
EN

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

**Product Name** Halamid®

**Chemical name** Tosylchloramide sodium

**CAS-No** 7080-50-4

**Additional CAS-No** 127-65-1 ( anhydrous form, not commercially available )

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

**Recommended Use** Biocidal product.

**Uses advised against** No information available.

### 1.3 Details of the supplier of the safety data sheet

Axcentive SARL	Axcentive Asia Pte Ltd
Chemin de Champouse	13 Lorong 8 Toa Payoh
13320 Bouc Bel Air	#07-01 Braddell Tech Park
France	319261 Singapore Axcentive Asia PTE LTD
Tel.: +33 442 694 090	Tel.: +65 6258 6338
Fax: +33 442 694 099	Fax: +65 6258 6901
Email: info@axcentive.com	Email: info@axcentive.com

### 1.4 Emergency telephone number

UK National Health Service (NHS) call 111 or, in life-threatening emergencies, call 999

WAL National Health Service (NHS) call 0845 46 47

IE National Poisons Information Centre  
+353 1 809 2566 or +353 1 837 9964 (only for healthcare professionals)

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

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### Classification (1272/2008/EC)

Acute Oral Toxicity	Category 4 - H302
Skin Corrosion/Irritation	Category 1B - H314
Respiratory Sensitisation	Category 1 - H334

For the full text of the H-Statements mentioned in this section, see Section 16.  
For the full text of the R-phrases mentioned in this section, see Section 16.

### 2.2 Label elements

**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

**Precautionary Statements**

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/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

**2.3 Other hazards**

None known.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

Chemical name	EC-No	CAS-No	Weight %	Classification (1272/2008/EC)	REACH registration number
Sodium p-toluenesulfonchloramide, trihydrate	204-854-7	7080-50-4	100	Acute Tox. 4 H302 Skin Corr. 1B H314 Resp. Sens. 1 H334	No data available

For the full text of the H-Statements mentioned in this section, see Section 16.

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

**SECTION 4: FIRST AID MEASURES****4.1 Description of first aid measures****General Advice**

Immediate medical attention is required.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention.

**Ingestion**

Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

**Inhalation**

Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if symptoms occur.

**Protection of first-aiders**

Use personal protective equipment. Avoid contact with skin, eyes and clothing.

**4.2 Most important symptoms and effects, both acute and delayed****Main symptoms**

Burning feeling and temporary redness. Harmful if swallowed. May cause allergy or

asthma symptoms or breathing difficulties if inhaled.

#### **4.3 Indication of any immediate medical attention and special treatment needed**

**Notes to physician** Treat symptomatically.

### **SECTION 5: FIREFIGHTING MEASURES**

#### **5.1 Extinguishing media**

**Suitable Extinguishing Media** Foam, Dry powder, Water spray, Carbon dioxide (CO<sub>2</sub>).

**Unsuitable Extinguishing Media** None known based on information supplied.

#### **5.2 Special hazards arising from the substance or mixture**

**Special Hazard** Hazardous decomposition products formed under fire conditions: Nitrogen oxides (NO<sub>x</sub>), Sulphur oxides, Hydrogen chloride.

#### **5.3 Advice for firefighters**

**Special protective equipment for fire-fighters** Wear self-contained breathing apparatus and protective suit.

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

Do not breathe dust. Avoid contact with skin, eyes and clothing. Wear suitable protective clothing.

#### **6.2 Environmental precautions**

Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

#### **6.3 Methods and material for containment and cleaning up**

Avoid dust formation. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

#### **6.4 Reference to other sections**

See sections 8 and 13.

### **SECTION 7: HANDLING AND STORAGE**

#### **7.1 Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice. Use only in well-ventilated areas. Do not eat, drink or smoke when using this product.

#### **7.2 Conditions for safe storage, including any incompatibilities**

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture, Acids.

#### **7.3 Specific end use(s)**

**Exposure scenario** Not available.

**Other information** Not available.

### **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **8.1 Control parameters**

**Exposure Limits** Contains no substances with occupational exposure limit values.

<b>Biological Limit Values</b>	Not established.
<b>Recommended monitoring procedures</b>	Refer to European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) or equivalent national standard(s). Refer to European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) or equivalent national standard(s). Refer to European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) or equivalent national standard(s).
<b>Derived No Effect Level (DNEL)</b>	No information available.
<b>Predicted No Effect Concentration (PNEC)</b>	No information available.

## 8.2 Exposure controls

<b>Appropriate Engineering Controls</b>	Do not breathe dust. Ensure adequate ventilation, especially in confined areas.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye Protection</b>	Tightly fitting safety goggles.
<b>Hand Protection</b>	Protective gloves: Nitrile rubber, Butyl rubber, PVC, Viton®, Neoprene. Break through time: 4-8 hours.
<b>Skin and Body Protection</b>	Long sleeved clothing.
<b>Respiratory Protection</b>	Respirator must be worn if exposed to dust.
<b>Recommended Filter Type</b>	P2
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use.
<b>Environmental exposure controls</b>	The product should not be allowed to enter drains, water courses or the soil.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Physical state @20°C</b>	Solid
<b>Appearance</b>	Crystalline Powder
<b>Colour</b>	White
<b>Odour</b>	Slight chlorine
<b>pH</b>	8.0-10.3 (@ 5%)
<b>Melting/freezing point</b>	Decomposes
<b>Boiling point/boiling range</b>	Not applicable ( solid )
<b>Flash point</b>	192 °C ( Closed cup )
<b>Evaporation rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Flammability Limits in Air</b>	No information available
<b>Vapour pressure</b>	No information available
<b>Vapour density</b>	Not relevant ( Solid )
<b>Relative density</b>	Not relevant ( Solid )
<b>Solubility</b>	
<b>Water solubility</b>	150 g/L (@25 °C)
<b>Solubility in Other Solvents</b>	Ethanol (75 g/l @ 20 °C)
<b>Partition coefficient (n-octanol/water)</b>	log Pow = -1.3
<b>Autoignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	120 - 165 °C
<b>Viscosity, dynamic</b>	Not applicable
<b>Explosive properties</b>	Not explosive

**Oxidising properties**

Not oxidizing

**9.2 Other information****Density**1430 kg/m<sup>3</sup>**Bulk Density**540-680 kg/m<sup>3</sup>**SECTION 10: STABILITY AND REACTIVITY****10.1 Reactivity**

Contact with acids liberates toxic gas.

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

Contact with acids liberates toxic gas.

**10.4 Conditions to avoid**

Heat, flames and sparks.

**10.5 Incompatible materials**

Moisture, Acids.

**10.6 Hazardous decomposition products**

Chlorine.

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute Toxicity****Ingestion**

Harmful if swallowed.

**Skin Contact**

No known effect.

**Inhalation**

No known effect.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium p-toluenesulfonchloramide, trihydrate	1000 mg/kg ( Rat, Mouse )	>2000 ( rabbit, 4h, 8% solution )	> 0.275 mg/L ( max. attained concentration, Rat, 4h )

**Skin Corrosion/Irritation**

Causes severe burns. Aqueous solution: Non-irritating @ ≤8%.

**Serious eye damage/irritation**

Causes severe damage to eyes. Aqueous solution: Non-irritating @ ≤8%.

**Respiratory or skin sensitisation**

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

**Germ Cell Mutagenicity**

Ames test: Not mutagenic. Micronucleus test: Not mutagenic.

**Carcinogenicity**

Contains no ingredient listed as a carcinogen.

**Reproductive Toxicity**

Not known to cause birth defects or have a deleterious effect on a developing fetus Not known to adversely affect reproductive functions and organs

**STOT-single exposure**

No known effect.

**STOT-repeated exposure**

Subchronic toxicity, 96d ( Oral ): NOEL = 15 mg/kg body weight/day.

**Aspiration Hazard**

No known effect.

**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity**

This product is not known to be hazardous to the environment.

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Micro-organisms	Toxicity to daphnia and other aquatic invertebrates
Sodium p-toluenesulfonchloramide, trihydrate	EC50: 80 mg/L 96h Chlorella pirenoidosa (as PTSA)	LC50: 31 mg/l 96h Poecilia reticulata		EC50: 4.5 mg/l 48h Daphnia magna EC50: >23 mg/l (flow through conditions) NOEC: 1.1 mg/l, LOEC 3.5 mg/l 21 days (chronic study)

**12.2 Persistence and degradability**

Readily biodegradable.

**12.3 Bioaccumulative potential**

Bioaccumulation is unlikely.

Chemical name	Log P <sub>ow</sub>	Bioconcentration factor (BCF)
Sodium p-toluenesulfonchloramide, trihydrate	-1.3	

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

This substance is not considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

**12.6 Other adverse effects**

No information available.

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

**Waste from residues / unused products** Dispose of in accordance with local regulations.

**Contaminated Packaging** Dispose of in accordance with local regulations. Do not re-use empty containers.

**SECTION 14: TRANSPORT INFORMATION**

According to: ADR, RID, ADN, IMDG, IATA/ICAO.

**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)**

Hazard class 8

Additional information: Classification code C8, Tunnel restriction code E, IMO/MDG EMS F-A, S-B, ADR Hazard Id (Kemmler Number): 80.

#### **14.4 Packing group**

Packing Group III

#### **14.5 Environmental hazards**

This product is not known to be hazardous to the environment.

Marine pollutant: No.

#### **14.6 Special precautions for user**

Not applicable.

#### **14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**

Not relevant.

### **SECTION 15: REGULATORY INFORMATION**

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

**Restrictions on use** None.

**Other Regulations** No information available.

#### **15.2 Chemical safety assessment**

No information available.

### **SECTION 16: OTHER INFORMATION**

#### **Full text of H-Statements referred to under sections 2 and 3**

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

#### **Classification according to EU Directives 67/548/EEC or 1999/45/EC**

Xn - Harmful, C - Corrosive

R22 - Harmful if swallowed

R31 - Contact with acids liberates toxic gas

R34 - Causes burns

R42 - May cause sensitisation by inhalation

#### **Revision note**

Indication of the changes made to the previous version of the SDS: Details of the supplier of the safety data sheet (EN), Remove 67/548/EEC and 1999/45/EC ( Section 2, 3 ).

#### **Abbreviations and acronyms**

ES: Exposure Scenario

EC: European Commission

REACH: Registration, Evaluation, Authorisation and Restriction of Chemical substances

LD50: Medial lethal dose

STOT: Specific Target Organ Toxicity

PBT: Persistent, Bioaccumulative, Toxic

vPvB: very Persistent and very Bioaccumulating

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement concernant le transport international ferroviaire des marchandises dangereuses (Regulations for the International Transport of Dangerous Goods by Rail)

ADN: Accord européen relatif au transport international des marchandises Dangereuses par voies de Navigation intérieures

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(European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)

IMDG: International Maritime Dangerous Goods Code

ICAO: International Civil Aviation Organization

**SDS No.**

AX00001 / AXCE

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 and Regulation (EC) No. 2015/830**

**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.**