

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006

**HALAMID® CHLORAMINE T**

1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND THE COMPANY/UNDERTAKING

<b>Product label name</b> tosylchloramide sodium	
<b>Supplier</b> Axcentive SARL Chemin de Champouse Quartier Violesi 13320 Bouc Bel Air France Tel.: +33 442 694 090 Fax : +33 442 694 099	
<b>E-mail address of person responsible for safety data sheet</b> info@axcentive.com	
<b>Emergency telephone</b> T +31570679211 F +31570679801 AkzoNobel Chemicals-Deventer-NL	
<b>Relevant identified uses of the substance or mixture</b> biocide	
<b>Date of last issue / Revision number</b> 2010/11/29 / 1.00	

2. HAZARDS IDENTIFICATION

Xn, R22: Harmful if swallowed, R31: Contact with acids liberates toxic gas. C, R34: Causes burns, R42: May cause sensitization by inhalation.
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<b>GHS classification</b>	
<b>Description</b>	<b>Applicable</b>
Acute toxicity (oral)	category 4
Respiratory sensitization	category 1
Skin corrosion/ irritation	category 1B

Pictogram(s) (GHS)



<b>Signal word/Hazard statement(s) GHS</b>	
<b>Code</b>	<b>Description</b>
AGHSDANG	Signal word: DANGER
H26EUH031	Contact with acids liberates toxic gas
H302.	Harmful if swallowed.
H314.	Causes severe skin burns and eye damage.

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H334.	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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Precautionary statement(s) (GHS)	
Code	Description
P260.	Do not breathe dust/fume/gas/mist/vapours/spray.
P264a.	Wash hands and contaminated skin thoroughly after handling.
P270.	Do not eat, drink or smoke when using this product.
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 victim to fresh air and keep at rest in a position 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.
P309+P311.	IF exposed or if you feel unwell: Call a POISON CENTER or physician.
P321a.	Specific treatment (see instruction on this label).
P405.	Store locked up.
P501a.	Dispose of contents and container according to local regulation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is to be considered as a substance in conformance to EC directives			
Information on hazardous ingredients			
<b>Chemical description</b> tosylchloramide sodium			
<b>Composition / information on ingredients</b>			
Number	% w/w	CAS-number	Chemical name
1	100	007080-50-4	Sodium p-toluenesulfonchloramide, trihydrate

Number	REACH Registratio n number	EC-number	Classification according to 1272/2008 as amended			Classification according to 67/548/EEC as amended
1		204-854-7	Acute toxicity (oral)	category 4	H26EUH031 H302 H314 H334	Xn C R22 R31 R34 R42
			Respiratory sensitization	category 1		
			Skin corrosion/ irritation	category 1B		

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

4. FIRST AID MEASURES

<b>Most important symptoms and effects</b> Causes injury to the cornea and eyelids. Causes burns. May cause sensitization by inhalation and skin contact.
<b>Description of first aid measures</b>
<b>General</b> Obtain medical attention immediately (show this Safety Data Sheet).
<b>Inhalation</b> Move to fresh air, rest, half upright position, loosen clothing. Oxygen or artificial respiration if there is difficulty in breathing. Seek medical advice after significant exposure.

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<b>Skin</b>	Remove all contaminated clothing immediately. Wash off with plenty of soap and water. Always seek medical advice. Launder clothes before reuse.
<b>Eye</b>	Rinse immediately and as long as possible with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Always seek medical advice.
<b>Ingestion</b>	Only when conscious, rinse mouth, give plenty of water to drink. DO NOT induce vomiting. Seek medical advice.
<b>Indication of any immediate medical attention and special treatment needed</b> Symptomatic treatment is advised.	

5. FIRE-FIGHTING MEASURES

<b>Extinguishing media</b>	foam, powder, waterspray, Carbon dioxide.
<b>Unsuitable extinguishing media</b>	none known.
<b>Hazardous decomposition / combustion products</b>	Emits toxic fumes under fire conditions (hydrochloric acid (HCl), nitrous gases (NOx), sulphur dioxide (SO2)).
<b>Protective equipment</b>	Wear self contained breathing apparatus.
<b>Fire and explosion hazard</b>	In case of fire and/or explosion do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Do not breathe dust. Avoid contact with skin and eyes. For personal protection see Section 8.
<b>Environmental precautions</b>	Do not allow to escape into sewage system or water courses.
<b>Methods and material for containment and cleaning up</b>	Collect as much as possible in a clean container for (preferable) reuse or disposal. Flush remainder with water.

7. HANDLING AND STORAGE

<b>Precautions for safe handling</b>	The usual precautions for handling chemicals should be observed.
<b>Fire and explosion prevention</b>	No specific recommendations.
<b>Conditions for safe storage</b>	Keep in a cool place. Keep container tightly closed and dry.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Control parameters</b>	Avoid inhalation of dusts.
<b>Personal protection</b>	
<b>Respiratory</b>	In case of dust formation use dust mask (respirator with filter P2)
<b>Hand</b>	protective gloves.
<b>Eye</b>	safety goggles.
<b>Skin and body</b>	protective clothing.

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<p><b>Other information</b> Remove contaminated clothing. Launder clothes before reuse.</p>
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In this country no exposure limit has been established
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9. PHYSICAL AND CHEMICAL PROPERTIES

<p><b>Appearance</b> crystalline powder</p>
<p><b>Colour</b> white</p>
<p><b>Odour</b> weak chlorine</p>
<p><b>Boiling point/range</b> not applicable</p>
<p><b>Melting point/freezing point</b> Decomposes</p>
<p><b>Flash point</b> 192 °C ( Pensky-Martens, closed cup )</p>
<p><b>Flammability</b> not determined</p>
<p><b>Explosive properties</b> not determined</p>
<p><b>Oxidising properties</b> not determined</p>
<p><b>Vapour pressure</b> not determined</p>
<p><b>Density</b> 1430 kg/m<sup>3</sup></p>
<p><b>Bulk density</b> 540-680 kg/m<sup>3</sup></p>
<p><b>Solubility in water</b> 150 g/l (25 °C)</p>
<p><b>Solubility in other solvents</b> ethanol (95 %): 75 g/l (20 °C)</p>
<p><b>pH value</b> 8.0-10.3 (5 % solution)</p>
<p><b>Partition coefficient n-octanol/water</b> not determined</p>
<p><b>Relative vapour density (air=1)</b> not relevant</p>
<p><b>Viscosity</b> not applicable</p>
<p><b>Autoignition temperature</b> not determined</p>
<p><b>Upper/lower flammability or explosive limits</b> not determined</p>

10. STABILITY AND REACTIVITY

<p><b>Conditions to avoid</b></p>
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Unstable in contact with water vapour. Contact with acids liberates toxic gas.
<b>Chemical stability</b> Stable under recommended storage and handling conditions (see section 7).
<b>Incompatible materials</b> Water vapour, acids.
<b>Hazardous decomposition products</b> chlorine

11. TOXICOLOGICAL INFORMATION

<b>Sodium p-toluenesulfonchloramide, trihydrate</b>
<b>Acute toxicity</b>
<b>Oral LD50</b> rat, mouse: approx. 1000 mg/kg ( Akzo Nobel E-file )
<b>Inhalation LC50</b> rat: > 0.275 mg/l (4 hours ) ( max. attainable concentration ) ( Akzo Nobel E-file )
<b>Irritation</b>
<b>Skin</b> Moistened powder: Corrosive ( Akzo Nobel E-file ) 8% solution: Non-irritating ( Akzo Nobel E-file )
<b>Eye</b> Moistened powder: Severely irritating ( Akzo Nobel E-file ) 8% solution: Moderately irritating ( Akzo Nobel E-file ) 0.5% solution: Non-irritating ( Akzo Nobel E-file )
<b>Sensitization</b> May cause sensitization by inhalation and skin contact ( Akzo Nobel E-file )
<b>Genotoxicity</b> Ames test: Not mutagenic ( Akzo Nobel E-file ) Micronucleus test: Not mutagenic ( Akzo Nobel E-file )
<b>Other toxicological information</b> subchronic (90 days) oral toxicity, rat: No Observed Effect Level 15 mg/kg/day ( Akzo Nobel E-file )

12. ECOLOGICAL INFORMATION

<b>Sodium p-toluenesulfonchloramide, trihydrate</b>
<b>Ecotoxicity</b>
<b>fish</b> 96h-LC50 ( Poecilia reticulata ) : 31 mg/l ( Akzo Nobel E-file )
<b>daphnia</b> 48h-EC50 : 4.5 mg/l ( Akzo Nobel E-file )
<b>Fate</b>
<b>Degradation Biotic</b> Readily biodegradable ( At low concentrations ). p-Toluenesulfonamide ( hydrolysis product ) : Readily biodegradable
<b>Other information</b> Daphnia magna reproduction test: No Observed Effect Concentration (NOEC) > 1 mg/l ( Akzo Nobel E-file )

13. DISPOSAL CONSIDERATIONS

<b>Product</b> Please refer to your specific industry in the European Waste Catalogue. According to local regulations.
<b>Contaminated packaging</b> According to local regulations.

14. TRANSPORT INFORMATION

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<i>Land transport</i>
<b>Transport hazard class</b> 8
<b>Classification Code</b> C8
<b>RID class</b> 8
<b>Packing group</b> III
<b>Hazard Identification No.</b> 80
<b>Substance Identification No.</b> 3263
<b>UN number</b> 3263
<b>Proper Shipping Name</b> CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (Sodium p-toluenesulfonchloramide)
<b>Other information</b> ADR Tunnel code E

<i>Sea transport (IMO / IMDG-code)</i>
<b>Transport hazard class</b> 8
<b>Packing group</b> III
<b>UN number</b> 3263
<b>EMS</b> F-A, S-B
<b>Marine pollutant</b> no
<b>Proper Shipping Name</b> Corrosive solid, basic, organic, n.o.s. (Sodium p-toluenesulfonchloramide)

<i>Air transport (ICAO-TI / IATA-DGR)</i>
<b>UN number</b> 3263
<b>Transport hazard class</b> 8
<b>Packing group</b> III
<b>Proper Shipping Name</b> Corrosive solid, basic, organic, n.o.s. (Sodium p-toluenesulfonchloramide)

15. REGULATORY INFORMATION

<b>Product label name</b> tosylchloramide sodium
<b>Labelling according to EC directives</b>

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**HALAMID® CHLORAMINE T**

<b>EC-number</b> See section 3
<b>Classification based on</b> Annex-VI

<b>R(isk) phrase(s) (EU classification)</b>	
<b>Code</b>	<b>Description</b>
R22	Harmful if swallowed
R31	Contact with acids liberates toxic gas
R34	Causes burns
R42	May cause sensitization by inhalation

<b>S(afety) phrase(s) (EU classification)</b>	
<b>Code</b>	<b>Description</b>
S07	Keep container tightly closed
S22	Do not breathe dust
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

**Classification according to 67/548/EC as ammended**


<b>CORROSIVE (C)</b>

**German Water Hazard Class (WGK)**  
2 (VwVwS Anhang 2, Kenn-Nr. 640)

16. OTHER INFORMATION

<b>Relevant hazard statements</b>		
<b>Chemical name</b>	<b>Hazard statement(s) (GHS-classification)</b>	
Sodium p-toluenesulfonchloramide, trihydrate	H26EUH031	Contact with acids liberates toxic gas

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	H302.	Harmful if swallowed.
	H314.	Causes severe skin burns and eye damage.
	H334.	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

R-pharse information		
Chemical name	R(isk) phrase(s) (EU classification)	
Sodium p-toluenesulfonchloramide, trihydrate	R22	Harmful if swallowed
	R31	Contact with acids liberates toxic gas
	R34	Causes burns
	R42	May cause sensitization by inhalation

History
<p><b>Other information</b>                      Halamid (Chloramine T) is the tri-hydrous form of the generally listed anhydrate (CAS No. 127-65-1). Conform EINECS rules the trihydrous form is included with the listing of the CAS Number of the anhydrous form. The tri-hydrous form is the only commercially available and chemically stable form of p-toluenesulfonchloramide.</p>
<p><b>Date of printing/ pdf file generated</b>                      2011/01/04</p>
<p><b>Revision</b>                      1.00</p>
<p><b>Composed by</b>                      Dr. B. Weuste P. van Lenthe</p>
<p><b>Changes were made in section</b>                      Status</p>
<p><small>This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.</small></p>