



# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Clorina

Revision date: 22.12.2016

Product code: 553

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

#### 1.1. Product identifier

Clorina

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

##### Use of the substance/mixture

Wipe disinfection of surfaces, objects and medical devices  
For professional use.

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

Company name: Lysoform Dr. Hans Rosemann GmbH  
Street: Kaiser-Wilhelm-Straße 133  
Place: D-12247 Berlin  
Telephone: +49 (0)30 77992-0  
Contact person: Wissenschaftlich-Technische Abteilung Berlin  
e-mail: kontakt@lysoform.de  
Internet: www.lysoform.de

Telefax: +49 (0)30 77992-219  
Telephone: +49 (0)30 / 77992-216

#### 1.4. Emergency telephone number:

+49 (0)89 19240 (Giftnotruf München Toxikologische Abteilung)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1B

Respiratory or skin sensitisation: Resp. Sens. 1

Hazard Statements:

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

##### Regulation (EC) No. 1272/2008

##### Hazard components for labelling

tosylchloramide sodium 3 H<sub>2</sub>O

Signal word: Danger

Pictograms:



##### 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.

##### Precautionary statements

P260 Do not breathe dust.  
P280 Wear protective gloves, protective clothing and eye protection.  
P233 Keep container tightly closed.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

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present and easy to do. Continue rinsing.

P342 If experiencing respiratory symptoms:

P310 Call a doctor.

**Special labelling of certain mixtures**

EUH031 Contact with acids liberates toxic gas.

**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients****3.1. Substances****Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
7080-50-4	tosylchloramide sodium 3 H <sub>2</sub> O			30 - < 100 %
	204-854-7	616-010-00-9		
	Acute Tox. 4, Skin Corr. 1B, Resp. Sens. 1; H302 H314 H334 EUH031			

Full text of H and EUH statements: see section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Call a physician immediately. If medical advice is needed, have product container or label at hand.

**After inhalation**

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

**After contact with skin**

Take off immediately all contaminated clothing and wash it before reuse. After contact with skin, wash immediately with plenty of water and soap.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Let water be drunken in little sips (dilution effect). Do NOT induce vomiting.

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

No information available.

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

none

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Water spray jet, Extinguishing powder, Foam

**5.2. Special hazards arising from the substance or mixture**In case of fire: Hydrochloric acid, Nitrogen oxides (NO<sub>x</sub>), Sulphur dioxide (SO<sub>2</sub>)



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

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### **Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

Do not allow entering drains or surface water.

### **SECTION 6: Accidental release measures**

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

Do not breathe dust. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

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

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

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

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### **SECTION 7: Handling and storage**

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

##### **Advice on safe handling**

To prepare a dilution, always first fill in the water and then add the product.

##### **Advice on protection against fire and explosion**

No special fire protection measures are necessary.

##### **Further information on handling**

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately. Avoid contact with eyes.

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

##### **Requirements for storage rooms and vessels**

Keep only in the original container in a cool, well-ventilated place. Keep container dry. Avoid: Frost. Keep out of the reach of children.

##### **Advice on storage compatibility**

Keep away from food, drink and animal feedingstuffs. (TRGS 510)

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

none

### **SECTION 8: Exposure controls/personal protection**

#### **8.1. Control parameters**

#### **8.2. Exposure controls**



##### **Protective and hygiene measures**

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately.

Wash hands before breaks and after work. Avoid contact with eyes and skin.



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#### Eye/face protection

When handling the concentrated product (for example, transferring) use tight fitting eye protection.  
Tightly sealed safety glasses.

#### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Chemical protective gloves must specifically chosen for each workplace depending on the concentration and amount of hazardous substances, temperature and contact time.

Recommendation:

NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

To prevent skin irritation in the professional field - regardless of actual contact with disinfectants - it is recommended to use: • a fast absorbing skin care cream in between if necessary. • a greasy cream after washing at the end of work or before breaks.

#### Skin protection

Wear suitable protective clothing.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection. P2

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state: solid Powder  
Colour: white  
Odour: characteristic

#### Test method

pH-Value (at 20 °C): 8 (50 g/l H<sub>2</sub>O)

#### Changes in the physical state

Melting point: not applicable

Initial boiling point and boiling range: not applicable

Flash point: not determined

#### Flammability

Solid: not determined

Gas: not applicable

Lower explosion limits: not determined

Upper explosion limits: not determined

#### Auto-ignition temperature

Solid: not determined

Gas: not applicable

Decomposition temperature: 176 °C

#### Oxidizing properties

not determined

Vapour pressure: not determined

Density (at 20 °C): 1.43 g/cm<sup>3</sup>

Bulk density: 700 kg/m<sup>3</sup>

Water solubility:  
(at 25 °C) 150 g/L

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**Solubility in other solvents**

not determined

Partition coefficient:

not determined

Vapour density:

not determined

Evaporation rate:

not determined

**9.2. Other information**

Solid content:

not determined

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Oxidising.

**10.2. Chemical stability**

The product is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

No hazardous reaction when handled and stored according to provisions. Contact with acids liberates toxic gas.

**10.4. Conditions to avoid**

Safe handling: see section 7

**10.5. Incompatible materials**

moisture. Acid.

**10.6. Hazardous decomposition products**Chlorine. Carbon dioxide (CO<sub>2</sub>) Carbon monoxide Hydrogen chloride (HCl). Nitrogen oxides (NO<sub>x</sub>) Sulphur oxides, Sodium oxide**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

Harmful if swallowed.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7080-50-4	tosylchloramide sodium 3 H <sub>2</sub> O				
	oral	LD50 mg/kg	ca. 1000	Rat	

**Irritation and corrosivity**

Causes severe skin burns and eye damage.

In case of skin contact:

Moistened powder: Corrosive / 8% solution: Not an irritant.

In case of eye contact:

Moistened powder: strongly irritant. / 8% solution: Moderately irritating / 0.5% solution: Not an irritant. / 0.2% solution: No irritation

**Sensitising effects**May cause allergy or asthma symptoms or breathing difficulties if inhaled. (tosylchloramide sodium 3 H<sub>2</sub>O)**Carcinogenic/mutagenic/toxic effects for reproduction**

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

Ames-Test: negative.

Micronucleus-Test: negative.

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**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Practical experience****Other observations**

Subchronic oral toxicity 90d Rat NOEL(C): 15 mg/kg/d

**SECTION 12: Ecological information****12.1. Toxicity**

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7080-50-4	tosylchloramide sodium 3 H <sub>2</sub> O					
	Acute fish toxicity	LC50	31 mg/l	96 h	Poecilia reticulata	Akzo Nobel
	Acute crustacea toxicity	EC50	4.5 mg/l	48 h	Daphnia	Akzo Nobel

**12.2. Persistence and degradability**

The product has not been tested.

Chloramin T: Readily biodegradable.

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Other adverse effects**

No information available.

**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

070513 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of pharmaceuticals; solid wastes containing hazardous substances; hazardous waste

**Waste disposal number of contaminated packaging**

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

**Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled.

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**SECTION 14: Transport information****Land transport (ADR/RID)**


**14.1. UN number:** UN 3263  
**14.2. UN proper shipping name:** CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (tosylchloramide sodium)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
Hazard label: 8



Classification code: C8  
Special Provisions: 274  
Limited quantity: 5 kg  
Excepted quantity: E1  
Transport category: 3  
Hazard No: 80  
Tunnel restriction code: E

**Marine transport (IMDG)**


**14.1. UN number:** UN 3263  
**14.2. UN proper shipping name:** CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (tosylchloramide sodium)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
Hazard label: 8



Special Provisions: 223, 274  
Limited quantity: 5 kg  
Excepted quantity: E1  
EmS: F-A, S-B

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number:** UN 3263  
**14.2. UN proper shipping name:** CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (tosylchloramide sodium)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
Hazard label: 8



Special Provisions: A3 A803  
Limited quantity Passenger: 5 kg  
Passenger LQ: Y845  
Excepted quantity: E1  
IATA-packing instructions - Passenger: 860



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IATA-max. quantity - Passenger:	25 kg
IATA-packing instructions - Cargo:	864
IATA-max. quantity - Cargo:	100 kg

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

### SECTION 15: Regulatory information

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

##### EU regulatory information

##### Additional information

To follow: Regulation (EC) No. 648/2004 (Detergents regulation), 850/2004/EC, 1107/2009/EC, 649/2012/EC.  
1907/2006 REACH / 1272/2008 CLP GHS

##### National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.
Water contaminating class (D):	2 - water contaminating

#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s):  
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

#### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%

#### Relevant H and EUH statements (number and full text)

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.

#### Further Information

The data contained in this safety data sheet is based on our current knowledge and experience and describe the product with regard to safety requirements. The information should not be regarded in any way as a description of the product's properties (product specification). Agreed characteristics nor the suitability of the product for a specific purpose can not be derived from the information in the SDS. We will advise you as to whether and under what circumstances, the preparation is suitable for a defined purpose. Proprietary rights





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and existing laws and regulations must be respected by the receiver of our product.