

CAS-No.: 7790-94-5 MSDS

## MATERIAL SAFETY DATA SHEET (MSDS)

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

#### 1.1. Product identifier

Product form	: Substance
	:
EC Index-No.	: 016-017-00-1
EC-No.	: 232-234-6
CAS-No.	: 7790-94-5
Product code	: 02771
Formula	: HClO <sub>3</sub> S
Synonyms	: Sulphuric chlorohydrin, Chlorosulphuric acid

#### 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 For professional use only
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##### 1.2.2. Uses advised against

No additional information available

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

LOBA CHEMIE PVT.LTD.  
107 Wode House Road, Jehangir Villa, Colaba  
400005 Mumbai - INDIA  
T +91 22 6663 6663 - F +91 22 6663 6699  
[info@lobachemie.com](mailto:info@lobachemie.com) - [www.lobachemie.com](http://www.lobachemie.com)

#### 1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

### SECTION 2: Hazards identification

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

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

Skin corrosion/irritation, H314  
Category 1A  
Specific target organ H335  
toxicity — Single  
exposure, Category 3,  
Respiratory tract irritation

Full text of H statements : see section 16

# CHLOROSULFONIC ACID FOR SYNTHESIS

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### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

C; R35

Xi; R37

R14

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

GHS07

Signal word (CLP) : Danger

Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.  
H335 - May cause respiratory irritation.

Precautionary statements (CLP) : P280 - Wear protective gloves, protective clothing, eye protection, face protection.  
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/doctor

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : CHLOROSULFONIC ACID FOR SYNTHESIS

CAS-No. : 7790-94-5

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EC Index-No. : 016-017-00-1

Full text of R- and H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

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First-aid measures after skin contact	: Take off immediately all contaminated clothing. Wash with plenty of water/.... Immediately call a POISON CENTER/doctor.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects	: Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	: May cause respiratory irritation.

### 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	: Dry chemical, CO <sub>2</sub> , dry sand, or alcohol-resistant foam.
Unsuitable extinguishing media	: Do not use extinguishing media containing water.

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

No additional information available

### 5.3. Advice for firefighters

Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
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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	: Evacuate unnecessary personnel.
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#### 6.1.2. For emergency responders

Protective equipment	: Use personal protective equipment as required.
Emergency procedures	: Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up	: Collect spillage. On land, sweep or shovel into suitable containers.
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### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Do not breathe vapours. Avoid contact with skin and eyes. Provide good ventilation in process area to prevent formation of vapour. Use only outdoors or in a well-ventilated area.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Technical measures	: Comply with applicable regulations.
Storage conditions	: Keep container tightly closed. Store in dry protected location to prevent any moisture contact.

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### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Hand protection	: Protective gloves
Eye protection	: Chemical goggles or face shield
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Approved supplied air respirator

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Molecular mass	: 116.52 g/mol
Colour	: Yellow.
Odour	: No data available
Odour threshold	: No data available
pH	: 1
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: -80 °C
Freezing point	: No data available
Boiling point	: 151 - 152 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 1 mm Hg (at 20°C)
Relative vapour density at 20 °C	: 4.02
Relative density	: No data available
Density	: 1.76 g/cm <sup>3</sup>
Solubility	: Water: Soluble in water
Log Pow	: No data available

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Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Highly reactive material. Reacts violently with water.

### 10.4. Conditions to avoid

Direct sunlight. Heat. Open flame.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Thermal decomposition generates : Corrosive vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 1
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: 1
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

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### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

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

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.  
Additional information : Do not allow water (or moist air) contact with this material.

### SECTION 14: Transport information

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

#### 14.1. UN number

UN-No. (ADR) : 1754  
UN-No. (IMDG) : 1754  
UN-No. (IATA) : 1754  
UN-No. (ADN) : 1754  
UN-No. (RID) : 1754

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : CHLOROSULPHONIC ACID  
Proper Shipping Name (IMDG) : CHLOROSULPHONIC ACID  
Proper Shipping Name (IATA) : Chlorosulphonic acid  
Proper Shipping Name (ADN) : CHLOROSULPHONIC ACID  
Proper Shipping Name (RID) : CHLOROSULPHONIC ACID  
Transport document description (ADR) : UN 1754 CHLOROSULPHONIC ACID, 8, I, (E)  
Transport document description (IMDG) : UN 1754 CHLOROSULPHONIC ACID, 8, I  
Transport document description (IATA) : UN 1754 Chlorosulphonic acid, 8

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Transport document description (ADN) : UN 1754 CHLOROSULPHONIC ACID, 8, I  
Transport document description (RID) : UN 1754 CHLOROSULPHONIC ACID, 8, I

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 8  
Danger labels (ADR) : 8



#### IMDG

Transport hazard class(es) (IMDG) : 8  
Danger labels (IMDG) : 8



#### IATA

Transport hazard class(es) (IATA) : 8

#### ADN

Transport hazard class(es) (ADN) : 8  
Danger labels (ADN) : 8



#### RID

Transport hazard class(es) (RID) : 8  
Danger labels (RID) : 8



### 14.4. Packing group

Packing group (ADR) : I  
Packing group (IMDG) : I  
Packing group (IATA) : Not applicable  
Packing group (ADN) : I  
Packing group (RID) : I

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No

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Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : C1  
Limited quantities (ADR) : 0  
Excepted quantities (ADR) : E0  
Packing instructions (ADR) : P001  
Mixed packing provisions (ADR) : MP8, MP17  
Portable tank and bulk container instructions (ADR) : T20  
Portable tank and bulk container special provisions (ADR) : TP2  
Tank code (ADR) : L10BH  
Vehicle for tank carriage : AT  
Transport category (ADR) : 1  
Special provisions for carriage - Operation (ADR) : S20  
Hazard identification number (Kemler No.) : X88  
Orange plates :



Tunnel restriction code (ADR) : E  
EAC code : 4WE  
APP code : B

#### - Transport by sea

Packing instructions (IMDG) : P001  
Tank instructions (IMDG) : T20  
Tank special provisions (IMDG) : TP2  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-B  
Stowage category (IMDG) : C  
Stowage and handling (IMDG) : SW2  
Properties and observations (IMDG) : Colourless liquid with a pungent odour. Reacts violently with water, evolving hydrogen chloride, an irritating and corrosive gas apparent as white fumes. In the presence of moisture, highly corrosive to most metals. Causes severe burns to skin, eyes and mucous membranes.  
MFAG-No : 137

#### - Air transport

PCA Limited quantities (IATA) : Forbidden  
PCA limited quantity max net quantity (IATA) : Forbidden  
PCA packing instructions (IATA) : Forbidden  
PCA max net quantity (IATA) : Forbidden  
CAO packing instructions (IATA) : Forbidden  
CAO max net quantity (IATA) : Forbidden  
ERG code (IATA) : 8W

#### - Inland waterway transport

Classification code (ADN) : C1  
Limited quantities (ADN) : 0  
Excepted quantities (ADN) : E0



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Equipment required (ADN) : PP, EP  
Number of blue cones/lights (ADN) : 0

### - Rail transport

Classification code (RID) : C1  
Limited quantities (RID) : 0  
Excepted quantities (RID) : E0  
Packing instructions (RID) : P001  
Mixed packing provisions (RID) : MP8, MP17  
Portable tank and bulk container instructions (RID) : T20  
Portable tank and bulk container special provisions (RID) : TP2  
Tank codes for RID tanks (RID) : L10BH  
Special provisions for RID tanks (RID) : TU38, TE22  
Transport category (RID) : 1  
Hazard identification number (RID) : X88

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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

CHLOROSULFONIC ACID FOR SYNTHESIS is not on the REACH Candidate List

CHLOROSULFONIC ACID FOR SYNTHESIS is not on the REACH Annex XIV List

#### 15.1.2. National regulations

##### Germany

Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV; ID No. 236)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : CHLOROSULFONIC ACID FOR SYNTHESIS is listed

SZW-lijst van mutagene stoffen : CHLOROSULFONIC ACID FOR SYNTHESIS is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

##### Denmark

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Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No additional information available

### SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Skin Corr. 1A	Skin corrosion/irritation, Category 1A
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
R14	Reacts violently with water
R35	Causes severe burns
R37	Irritating to respiratory system
C	Corrosive
Xi	Irritant

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*