



Chlorosulfonic acid, 98% CAS No.7790-94-5

MSDS : Chlorosulfonic acid, 98%

CAS : 7790-94-5

SYNONYMS :

****** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ******

| CAS# | Chemical Name | % | EINECS# |

|-----|-----|-----|-----|
| 7790-94-5 | Chlorosulfonic acid | 98% | 232-234-6 |

Hazard Symbols: C

Risk Phrases: 14 35 37

****** SECTION 3 - HAZARDS IDENTIFICATION ******

EMERGENCY OVERVIEW

Reacts violently with water. Causes severe burns. Irritating to respiratory system. Hygroscopic (absorbs moisture from the air).

Potential Health Effects

Eye: Causes eye burns. Lachrymator (substance which increases the flow of tears).

Skin: Causes skin burns.

Ingestion: Causes gastrointestinal tract burns.

Inhalation: Causes respiratory tract irritation. Causes chemical burns to the respiratory tract.

Chronic: Not available.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media:

Do NOT use water directly on fire. Use foam, dry chemical, or carbon dioxide.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

****** SECTION 7 - HANDLING and STORAGE ******

Handling:

Do not get on skin and clothing. Do not breathe dust, vapor, mist, or gas. Use only in a chemical fume hood.

Storage:

Store in a cool, dry place. Store in a tightly closed container.
Corrosives area.

****** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ******

Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

CAS# 7790-94-5:

United Kingdom, WEL - TWA: 1 mg/m³ TWA

United Kingdom, WEL - STEL: 3 mg/m³ STEL

Personal Protective Equipment

Eyes:

Not available.

Skin:

Wear appropriate protective gloves and clothing to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to minimize contact with skin.

Respirators:

Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

****** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ******

Physical State: Viscous liquid

Color: cloudy, colorless

Odor: pungent odor

pH: Not available.
Vapor Pressure: 1 mm Hg @ 20C
Viscosity: 3 cP 16.00 deg C
Boiling Point: 151 - 152 deg C @ 755.00mm Hg
Freezing/Melting Point: -80 deg C
Autoignition Temperature: Not available.
Flash Point: Not available.
Explosion Limits, lower: 3.30 vol %
Explosion Limits, upper: 37.70 vol %
Decomposition Temperature: >151 deg C
Solubility in water: reacts
Specific Gravity/Density: 1.7530g/cm³
Molecular Formula: ClSO₃H
Molecular Weight: 116.52

****** SECTION 10 - STABILITY AND REACTIVITY ******

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, organic materials.

Incompatibilities with Other Materials:

Water, metals, acids, bases, alcohols, amines, finely powdered metals, plastics.

Hazardous Decomposition Products:

Hydrogen chloride, oxides of sulfur.

Hazardous Polymerization: Has not been reported.

****** SECTION 11 - TOXICOLOGICAL INFORMATION ******

RTECS#:

CAS# 7790-94-5: FX5730000

LD50/LC50:

CAS# 7790-94-5: Oral, rat: LD50 = 50 mg/kg.

Carcinogenicity:

Chlorosulfonic acid -

Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

****** SECTION 12 - ECOLOGICAL INFORMATION ******

****** SECTION 13 - DISPOSAL CONSIDERATIONS ******

Dispose of in a manner consistent with federal, state, and local regulations.

****** SECTION 14 - TRANSPORT INFORMATION ******

IATA

Shipping Name: CHLOROSULPHONIC ACID

Hazard Class: 8

UN Number: 1754

Packing Group:

IMO

Shipping Name: CHLOROSULPHONIC ACID

Hazard Class: 8

UN Number: 1754

Packing Group: I

RID/ADR

Shipping Name: CHLOROSULPHONIC ACID

Hazard Class: 8

UN Number: 1754

Packing group: I

USA RQ: CAS# 7790-94-5: 1000 lb final RQ; 454 kg final RQ

****** SECTION 15 - REGULATORY INFORMATION ******

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 14 Reacts violently with water.

R 35 Causes severe burns.

R 37 Irritating to respiratory system.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 7790-94-5: 2

Canada

CAS# 7790-94-5 is listed on Canada's DSL List.

CAS# 7790-94-5 is listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 7790-94-5 is listed on the TSCA inventory.

****** SECTION 16 - ADDITIONAL INFORMATION ******

MSDS Creation Date: 5/28/1998 Revision #3 Date: 6/10/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

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