MSDS OF TRICHLOROISOCYANURIC ACID（TCCA）

****SECTION 1-CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****

MSDS Name: Trichloroisocyanuric acid

Synonyms:1,3,5-Trichloro-1-Triazine-2,4,6(1H,3H,5H)-Trione. TCCA

Company Identification: COSMO CHEMISTRY

Add: Office No. 713, Millennium Business Hub,Sarthana Jakatnaka, Varachha Main Road, Surat, Gujarat, India– 39500

For emergencies call: +91 979797 7958

E-mail: info@cosmochemistryindia.com

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

Hazard Symbols: X N O **Risk Phrases:**22 31 36/37 8 **EINECS#:**201-782-8

CAS#: 87-90-1 **Chemical Name:** Trichloroisocyanuric acid

COMPONENT	CONCENTRATION(%)	CAS NO.	EC NO.
Trichloroisocyanuric acid	99.60	87-90-1	201-782-8
Water	0.40	7732-18-5	231-791-2

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

EMERGENCY OVERVIEW

Harmful if swallowed. Contact with acids liberates toxic gas. Irritating to eyes and respiratory system. Contact with combustible material may cause fire. Hygroscopic.

Potential Health Effects

Eye: May cause conjunctivitis. May cause permanent corneal opacification.

Skin: May cause severe irritation and possible burns.

Ingestion: Harmful if swallowed. May cause liver and kidney damage. May cause nausea, vomiting, and diarrhea, possibly with blood.

Inhalation: Causes respiratory tract irritation. May cause acute pulmonary edema, asphyxia, chemical pneumonitis, and upper airway obstruction caused by edema.

Chronic: May cause liver and kidney damage. Effects may be delayed

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

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately ,or take to a doctor.

Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately. DO NOT induce vomiting. Allow the victim to rinse his mouth and them to drink 2-4 cupfuls of water, and seek medical advice.

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

Notes to Physician: Treat symptomatically and supportively.

******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 gcar. Strong oxidizer. Contact with combustible materials may cause a fire.

Extinguishing Media:

In case of fire, use water, dry chemical ,chemical foam, or alcohol-resistant foam, Use agent most appropriate to extinguish fire.

Autoignition Temperature: Not available.

Flash Point: 225 deg C(437.00 deg F)

Explosion Limits, Lower: Not available.

Upper: Not available.

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

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

Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal.

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

Handling: Avoid contact with clothing and other combustible materials.

Storage: Do not store near combustible materials. Corrosives area.

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

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels .

OSHA Vacated PELs: Trichloroisocyanuric acid.

No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment:

Eyes: Wear chemical goggles,Wear safety glasses and chemical goggles if splashing is poddible.

Skin: Wear appropriate protective gloves and clothing to prevent skin exposure.

Clothing : Wear appropriate protective clothing to minimize contact with shin.

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-STABILITY AND REACTIVITY******

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials ,strong oxidants.

Incompatibilities with Other Materials:

Strong reducing agents-string bases-moist air or water.

Hazardous Decomposition Products:

Hydrogen chloride, nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

Hazardous Polymerization:

Has not been reported .

****SECTION 10-PHYSICAL AND CHEMICAL PROPERTIES****

Physical State:	Solid
Appearance:	White granular, powder or tablet.
Odor:	None reported.
PH:	2.7-3.3
Vapor Density:	Not available.
Vapor Pressure:	Not available.
Evaporation Rate:	Not available.
Viscosity:	Not available.
Boiling Point:	Not available.
Freezing/Melting Point:	249.00-251.00deg C.
Decomposition Temperature:	225 deg C.
Solubility:	1.2G/100ML.(25℃).
Specific Gravity/Density:	Not available.
Molecular Formula:	$C_3N_3O_3Cl_3$.
Molecular Weight:	232.44.

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

RTECS#: CAS#87 90-1:XZ1925000

LD50/LC50: CAS#87-90-1: Oral, rat: LD_{50}=700-800mg/kg.

Carcinogenicity: Trichloroisocyanuric acid

Not listed by ACGIH,IARC, NIOSH, NTP, or OSHA.

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

Ecotoxicity: Not available.

****SECTION 13-TRANSPORT INFORMATION****

Shipping Name: TRICHLOROISOCYANURIC ACID

Hazard Class: 5.1 UN NO.: UN2468 Packing Group: II

IMO No information available.

IATA No information available.

RID/ADR No information available.

****SECTION 14-REGULATORY INFORMATION****

US FECERAL

TSCA CAS#87-90-1 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health &Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12h.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR undet TSCA.SARA

Section 302(RQ)

None of the chemicals in this material have an RQ.

Section 302(TPQ)

None of the chemicals in this product have an TPQ.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletions.

This material does not contain any Class 2 Ozone depletions.

Clean Water Act:

None of the chemical in this product are listed as Hazardous Substances under the CWA.

None of the chemical in this product are listed as Priority Pollutants under the CWA.

None of the chemical in this product are listed as Toxic Pollutants Under the CWA.

OSCHA: None of the chemicals in this product are considered highly hazardous by OSHA.

Hazard Phrases: XN O

Risk Phrases: R 22 Harmfully if swallowed.

R 31 Contact with acids liberates toxic gas.

R 36/37 Irritating to eyes and respiratory system.

R 8 Contact with combustible material may cause fire.

Safety Phrases: S 26 In case of contact with eyes ,rinse immediately with Plenty of water and seek medical advice.

S 41 In case of fire and/or explosion do not breathe fumes.

S 8 Keep container dry .

WGK(Water Danger/Protection)

CAS#87-90-1:No information available.

Canada :CAS#87-90-1 is listed on Canada's DSL/NDSL. List.

WHMIS: Not available.

CAS#87-90-1 is listed on Canada's Ingredient Disclosure List.

******SECTION 15-ADDITIONAL INFORMATION******

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 Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, incidental, incidental. consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.

MSDS Creation Date: 01/01/2023