

Common Name: **TIN TETRACHLORIDE**

Synonyms: Stannic Chloride; Tin Perchloride

CAS No: 7646-78-8

 Molecular Formula: SnCl₄

RTK Substance No: 1859

Description: Colorless or slightly yellow liquid which fumes in moist air

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
3 - Health 0 - Fire 1 - Reactivity DOT#: UN 1827 ERG Guide #: 137 Hazard Class: 8 (Corrosive)	Extinguish fire using an agent suitable for type of surrounding fire. Tin Tetrachloride itself does not burn. DO NOT USE WATER. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Hydrogen Chloride</i> and <i>Tin Oxides</i> . Use water spray only to keep fire-exposed containers cool. Tin Tetrachloride may ignite organic materials (wood, paper and oil).	Tin Tetrachloride reacts vigorously with WATER or MOIST AIR to produce corrosive <i>Hydrogen Chloride</i> gas, and contact with ETHYLENE OXIDE may cause violent polymerization (self-reaction). Tin Tetrachloride reacts violently with STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE); OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); ORGANIC MATTER; TURPENTINE; ALKYL NITRATES; ALCOHOLS; and AMINES to cause fires and explosions. Tin Tetrachloride attacks METALS, PLASTIC COATINGS, and RUBBER.

SPILL/LEAKS

Isolation Distance:

Liquid Spill: 50 meters (150 feet)

Fire: 800 meters (1/2 mile)

Absorb liquids in dry sand or earth, or cover with dry lime or soda ash and place in covered containers for disposal.

DO NOT USE WATER OR WET METHOD.

DO NOT wash into sewer.

Harmful to aquatic organisms.

PHYSICAL PROPERTIES

Flash Point:	Not combustible
Vapor Density:	9 (air = 1)
Vapor Pressure:	18 mm at 68°F (20°C)
Specific Gravity:	2.2 (water = 1)
Water Solubility:	Soluble - water reactive
Boiling Point:	237°F (114°C)
Melting Point:	-27.4°F (-33°C)
Molecular Weight:	260.5

EXPOSURE LIMITS

OSHA:	2 mg/m ³ , 8-hr TWA
NIOSH:	2 mg/m ³ , 10-hr TWA
ACGIH:	2 mg/m ³ , 8-hr TWA
IDLH LEVEL:	100 mg/m ³
	All of the above are for <i>inorganic Tin compounds</i> . (measured as <i>Tin</i>)

PROTECTIVE EQUIPMENT

Gloves:	Viton and Silver Shield®/4H® (for <i>Carbon Tetrachloride</i>)
Coveralls:	DuPont Tychem® Responder®, CSM and TK; Kappler Zytron® 300, 400, and 500; Saint-Gobain ONESuit®/TEC or equivalent for <i>corrosive liquids</i> (>8-hr breakthrough)
Respirator:	>2 mg/m ³ - full facepiece APR with High efficiency filters >20 mg/m ³ - Supplied air

HEALTH EFFECTS

Eyes:	Irritation, burns
Skin:	Irritation, burns
Inhalation:	Nose and throat irritation Coughing and shortness of breath (pulmonary edema) Headache, nausea and vomiting

FIRST AID AND DECONTAMINATION

Remove the person from exposure.
Flush eyes with large amounts of water for at least 30 minutes. Remove contact lenses if worn. Seek medical attention immediately.
Quickly remove contaminated clothing and wash contaminated skin with large amounts of water. Seek medical attention immediately.
Begin artificial respiration if breathing has stopped and CPR if necessary.
Transfer to a medical facility.
Medical observation is recommended as symptoms may be delayed.