

MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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SECTION 1 Product Identification

CHEMICAL NAME: Platinum (IV) chloride

CAS #: 13454-96-1

FORMULA: PtCl₄

SYNONYM: Platinum tetrachloride, tetrachloroplatinum, platinic chloride

SECTION 2 Composition and Information on Ingredients

INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	13454-96-1	100	0.002mg/m ³ (as Pt - soluble)	0.002mg/m ³ (as Pt - soluble)

SECTION 3 Hazards Identification

EMERGENCY OVERVIEW: Exposure to platinum salts has been shown to cause wheezing, coughing, shortness of breath and running of the nose. Harmful if swallowed. Causes burns. Skin contact can lead to dermatitis.

PRIMARY ROUTES OF EXPOSURE: Ingestion, skin, inhalation of dust

EYE CONTACT: Causes burns to the eyes.

SKIN CONTACT: Causes slight burns to the skin. May cause dermatitis. Can induce an allergic reaction.

INHALATION: Inhalation of dust may cause wheezing, coughing, shortness of breath and asthma like symptoms. Causes burns to the respiratory tract.

INGESTION: Ingestion may lead to dizziness, abdominal cramps, and vomiting. Harmful if swallowed.

CHRONIC HEALTH EFFECTS: The chloroplatinate allergic reaction known as platinosis ceases when exposure is terminated. No permanent long term effects are reported. May cause heritable genetic damage.

ACUTE HEALTH EFFECTS: Upon repeated exposure certain persons may develop an allergic reaction to chloroplatinates, causing wheezing, coughing, shortness of breath and runny nose. Causes burns. Harmful if swallowed.

SECTION 4 First Aid Measures

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if

conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 Firefighting Measures

FLASH POINT: not applicable

AUTO IGNITION TEMPERATURE: not applicable

EXPLOSION LIMITS: none

EXTINGUISHING MEDIUM: None. Material is non-flammable.

SPECIAL FIREFIGHTING PROCEDURES: If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: If involved in a fire this material may emit toxic fumes of chlorine gas and hydrogen chloride.

UNUSUAL FIRE OR EXPLOSION HAZARDS: none

SECTION 6 Accidental Release Measures

SPILL AND LEAK PROCEDURES: To avoid raising dust, small spills may be mixed with diatomaceous earth, sand, vermiculite other suitable inert material and swept up.

SECTION 7 Handling and Storage

HANDLING AND STORAGE: Store solid in a tightly sealed container away from moisture. Handle under a dry atmosphere of air or nitrogen. Prolonged exposure to the atmosphere may degrade the product.

SECTION 8 Exposure Controls and Personal Protection

EYE PROTECTION: Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.

SKIN PROTECTION: Chemical-resistant.

VENTILATION: If possible, handle the material in an efficient fume hood.

RESPIRATOR: If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

SECTION 9 Physical and Chemical Properties

COLOR AND FORM: reddish-brown xtl.

MOLECULAR WEIGHT: 336.9

MELTING POINT (DEG. C.): none

BOILING POINT: no data

VAPOR PRESSURE: not applicable

SPECIFIC GRAVITY: 4.303

SOLUBILITY IN WATER: insoluble

SECTION 10 Stability and Reactivity

STABILITY: moisture sensitive

HAZARDOUS POLYMERIZATION: no hazardous polymerization
CONDITIONS TO AVOID: contact with moisture
INCOMPATIBILITY: oxidizing agents and active metals
DECOMPOSITION PRODUCTS: Chloroplatinic acid, platinum dichloride, hydrogen chloride, chlorine

SECTION 11 Toxicological Information

RTECS DATA: Administration onto the skin (rabbit); Standard Draize test: 100 mg/24H. Oral (rat); LD50: 276 mg/kg. Intratesticular (rat); TDLo: 26951 ug/kg. Subcutaneous (mouse); TDLo: 26951 ug/kg. Bacteria-Salmonella typhimurim; Mutation in microorganisms: 100 ng/disc. Bacteria-Escherichia coli; Mutation test systems-not otherwise specified: 100 umol/L. Bacteria-Bacillus subtilis; DNA repair: 1 mmol/L. Oral (insect-Drosophila melanogaster); Sex chromosome loss and nondisjunction: 300 umol/U72H. Human Lymphocyte; Micronucleus test: 20 umol/L. Human Lung; DNA inhibition: 2300 ug/L. Intraperitoneal (rat); DNA inhibition:28 umol/kg.

MUTAGENIC EFFECTS: no data

TETRATOGENIC EFFECTS: no data

CARCINOGENIC EFFECTS: no data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 Ecological Information

ECOLOGICAL INFORMATION: No information available

SECTION 13 Disposal Considerations

DISPOSAL: Dispose of in according to local state and federal regulations.

SECTION 14 Transportation Information

Corrosive solid, acidic, inorganic, n.o.s., Class 8, UN 3260, PG III

SECTION 15 Regulatory Information

TSCA: Listed in the TSCA inventory

SARA (TITLE 313): Title compound not listed

SECTION 16 Other Information

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

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