



Safety Data Sheet

In accordance with CFR 1910.1200 (OSHA HCS)

SDS No. 203

Date of review: February 21, 2020

1 Identification of substance and company

Product name: **Platinum (IV) chloride**
Product code: 16922, C2812
Relevant use and restrictions on use: Research and product development
Manufacturer/Supplier: Noah Technologies Corporation
1 Noah Park
San Antonio, Texas 78249-3419
Phone: 210-691-2000
Fax: 210-691-2600
Web site: www.noahtech.com
Emergency information: CHEMTREC
800-424-9300

2 Hazards identification

Emergency Overview:

Pictogram(s):



Signal word(s):

Danger

Hazard statements:

H301 Toxic if swallowed
H314 Causes severe skin burns and eye damage
H317 May cause an allergic skin reaction
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statements:

P260 Do not breathe dust or mist
P264 Wash skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P272 Contaminated work clothing should not be allowed out of the workplace
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
P285 In case of inadequate ventilation wear respiratory protection
P301+310+330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+361+353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+340+310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305+351+338 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
P333+313 If skin irritation or rash occurs: Get medical advice/ attention
P342+311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor
P363 Wash contaminated clothing before reuse
P405 Store locked up
P501 Dispose of contents/container to an approved waste disposal plant

GHS Classification:

Acute toxicity, oral - 3
Skin corrosion - 1B
Serious eye damage - 1
Respiratory sensitization - 1
Skin sensitization - 1

Hazards not otherwise classified:

None

HMIS ratings (scale 0-4):

Health hazard: 2
Flammability: 0
Physical hazard: 0

3 Composition/Information on ingredients

Chemical name:	Platinum (IV) chloride
Designation:	
CAS number:	13454-96-1
EC number:	236-645-1
Formula:	PtCl ₄
Synonyms:	Platinum tetrachloride

4 First aid measures

After inhalation:	Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
After skin contact:	Wash off with soap and plenty of water. Consult a physician.
After eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
After ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth out with water. Consult a physician.
Information for doctor:	Show this safety data sheet to the doctor in attendance
Symptoms/effects; acute and delayed:	Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, sneezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin. Platinum compounds are generally highly toxic, even though the rate of absorption is poor. Symptoms of platinum intoxication are hepatic and renal damage, and manifestations in predisposed persons (rhinitis, asthmatic attack, urticaria) Chronic effects: Dermatitis, asthma Experimental reproductive effects and mutagenic data
Immediate medical attention and special treatment needed:	See above

5 Fire-fighting measures

Suitable and unsuitable extinguishing agents:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Special hazards caused by the material, its products of combustion or resulting gases:	Platinum oxides, hydrogen chloride
Special fire fighting procedures:	Wear self-contained breathing apparatus (SCBA) and fully protective fire fighting equipment/ clothing
Unusual fire and explosion hazard:	No data available

6 Accidental release measures

Person-related safety precautions:	Use personal protective equipment. Avoid dust formation. Avoid breathing dust.
Measures for environmental protection:	Do not let product enter drains
Measures for cleaning/collecting:	Sweep or scoop up and remove. Place in a suitable container for proper disposal.
Additional information:	See Section 7 for information on safe handling See Section 8 for information on personal protective equipment See Section 13 for information on disposal See Section 15 for regulatory information

7 Handling and storage

Information for safe handling:	Avoid contact with skin and eyes. Avoid formation of dust. Use with adequate ventilation.
Information about protection against explosions and fires:	Normal measures for preventive fire protection
Storage requirements to be met by storerooms and containers:	Keep container tightly closed in dry and well-ventilated place Keep container in a dark location out of light
Incompatibility (avoid contact with):	Strong acids and oxidizers
Further information about storage conditions:	No further information available

8 Exposure controls/personal protection

Ventilation requirements:	Use with adequate ventilation
Components with exposure limits that require monitoring:	ACGIH TLV: TWA 0.002 mg(Pt)/m ³ : Upper respiratory tract irritation, asthma OSHA PEL: TWA 0.002 mg(Pt)/m ³
Additional information:	No further information available
General protective and hygienic measures:	The usual precautionary measures for handling chemicals should be adhered to Keep away from foodstuffs, beverages and food Instantly remove any soiled and impregnated garments Wash hands during breaks and at the end of the work Avoid contact with the eyes and skin
Personal protective equipment:	
Respiratory protection:	Filter-dust, fume, mist respirator
(Use only NIOSH or CEN approved Equipment)	
Hand protection:	Impervious gloves

Eye protection:	Safety glasses with side-shields
Skin protection:	Protective work clothing
Additional protective equipment:	Sufficient to prevent contact. Emergency eyewash and safety shower.
Precautionary labeling:	Wash thoroughly after handling Do not get in eyes, on skin or on clothing Do not breathe dust, vapor, mist, or gas

9 Physical and chemical properties

Physical state:	Powder or granules
Color:	Brown-red
Odor:	Odor of hydrochloric acid
Odor threshold:	No data available
Molecular Weight (Calculated):	336.9
pH	No data available
Melting point/freezing point/range:	370 °C (decomposes)
Boiling point/range:	Decomposes
Sublimation temperature/start:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	Non-flammable
Flash point:	No data available
Autoignition temperature:	No data available
Danger of explosion:	No data available
Flammable limits:	No data available
Lower:	No data available
Upper:	No data available
Evaporation Rate:	No data available
Vapor pressure (mm Hg):	No data available
Vapor density:	No data available
Specific gravity:	4.303
Bulk density:	No data available
Solubility in/Miscibility with water:	587 g/L @ 20 °C
Partition coefficient n-octanol/water:	No data available
Viscosity:	No data available

10 Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under recommended storage conditions
Possibility of hazardous reactions:	No data available
Conditions to be avoided:	Excessive heat, water/moisture, light See section 7 for information on proper handling and storage
Materials to be avoided:	Strong acids and oxidizers
Dangerous reactions:	No data available
Hazardous decomposition products:	Platinum oxides, hydrogen chloride

11 Toxicological information

LD/LC50 values that are relevant for classification:	oral-rat LD ₅₀ : 276 mg/kg
Irritation or corrosion of skin:	skin-rabbit 100 mg/24H:SEV
Irritation or corrosion of eyes:	No data available
Primary irritant or corrosive effect:	
on the skin:	May cause irritation
on the eye:	May cause irritation
Sensitization:	No data available
Potential health effects:	
Inhalation:	May cause irritation to the upper respiratory tract and mucous membranes May cause or aggravate asthma
Ingestion:	No data available
Skin:	May cause irritation
Eyes:	May cause irritation
Signs and symptoms of exposure:	Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, sneezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin. Chronic effects: Dermatitis, asthma Experimental reproductive effects and mutagenic data To the best of our knowledge the acute and chronic toxicity of this substance is not fully known
Carcinogenicity:	No component of this product is identified as a carcinogen or potential carcinogen by IARC, NTP or OSHA
Additional information:	No additional information available

12 Ecotoxicological information

Toxicity:	
Toxicity to fish:	No data available
Toxicity to daphnia and other aquatic invertebrates:	No data available
Toxicity to algae:	No data available
Persistence and degradability:	
Biodegradability:	No data available
Bioaccumulative potential:	
Bioaccumulation:	No data available
Mobility in soil:	No data available
Other adverse effects:	No additional information available

13 Disposal considerations

Recommendation:	Consult state, local or national regulation for proper disposal Allow professional disposal company to handle waste Must be specially treated under adherence to official regulations
Unclean packagings recommendation:	Disposal must be made according to official regulations

14 Transport information

Land transport DOT

Proper shipping name:	Corrosive solid, toxic, n.o.s.
Technical name:	Platinum (IV) chloride
DOT Hazard Class:	8
Subsidiary risk:	6.1
UN Identification number:	UN2923
Label(s):	Corrosive and Toxic
Packing group:	III
North American Emergency Response Guidebook No.:	154

Air transport ICAO-TI and IATA-DGR:

Proper shipping name:	Corrosive solid, toxic, n.o.s.
Technical name:	Platinum (IV) chloride
DOT Hazard Class:	8
Subsidiary risk:	6.1
UN Identification number:	UN2923
Label(s):	Corrosive and Toxic
Packing group:	III
North American Emergency Response Guidebook No.:	154

UPS Ground / FedEx Ground

Proper shipping name:	Corrosive solid, toxic, n.o.s.
Technical name:	Platinum (IV) chloride
DOT Hazard Class:	8
Subsidiary risk:	6.1
UN Identification number:	UN2923
Label(s):	Corrosive and Toxic
Packing group:	III
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UPS Air

Proper shipping name:	Corrosive solid, toxic, n.o.s.
Technical name:	Platinum (IV) chloride
DOT Hazard Class:	8
Subsidiary risk:	6.1
UN Identification number:	UN2923
Label(s):	Corrosive and Toxic
Packing group:	III
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15 Regulatory information

SARA Section 302 Extremely Hazardous

components and corresponding TPQs: Not subject

SARA Section 311 / 312 hazards: Acute Health Hazard

SARA Section 313 components: Not subject

California Proposition 65 components: Not subject

TSCA: Material is listed on TSCA Inventory

16 Other information

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulation are subject to change and the conditions of handling and use, or misuse are beyond our control. NOAH MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON.

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