

SAFETY DATA SHEET

1. Identification

Product identifier: PLATINUM CHLORIDE 10% SOLUTION

Other means of identification

Product No.: 2896

Recommended use and restriction on use

Recommended use: Not available.

Restrictions on use: Not known.

Details of the supplier of the safety data sheet

Manufacturer

Company Name: Avantor Performance Materials, Inc.
Address: 3477 Corporate Parkway, Suite 200
Center Valley, PA 18034

Telephone: Customer Service: 855-282-6867

Fax: 610-573-2610
Contact Person: Environmental Health & Safety
E-mail: info@avantormaterials.com

Emergency telephone number:

24 Hour Emergency: 908-859-2151
Chemtrec: 800-424-9300

2. Hazard(s) identification

Hazard Classification

Health Hazards

Acute toxicity (Oral)	Category 4
Skin Corrosion/Irritation	Category 1B
Serious Eye Damage/Eye Irritation	Category 1
Respiratory sensitizer	Category 1
Skin sensitizer	Category 1

Environmental Hazards

Acute hazards to the aquatic environment	Category 3
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Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement:	Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Harmful to aquatic life.
Precautionary Statement	
Prevention:	Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.
Response:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Collect spillage.
Storage:	Store locked up.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification:	None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
CHLOROPLATINIC ACID		16941-12-1	10%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

General information:	Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
Ingestion:	Rinse mouth thoroughly. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.
Inhalation:	Move to fresh air. Get medical attention if symptoms persist.
Skin Contact:	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If skin irritation or an allergic skin reaction develops, get medical attention. Wash contaminated clothing before reuse.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

Most important symptoms/effects, acute and delayed

Symptoms: May cause irritation to skin, eyes, and respiratory tract.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically. Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: In case of fire and/or explosion do not breathe fumes.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep unauthorized personnel away. Use personal protective equipment. Ventilate closed spaces before entering them. See Section 8 of the SDS for Personal Protective Equipment.

Methods and material for containment and cleaning up: Neutralize with alkaline material (Lime, crushed limestone, sodium bicarbonate or soda ash). Flush area with water. Absorb in vermiculite, dry sand or earth and place into containers. Clean surface thoroughly to remove residual contamination.

Notification Procedures: Prevent entry into waterways, sewer, basements or confined areas. Stop leak if you can do so without risk. Inform authorities if large amounts are involved.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling:	Use personal protective equipment as required. Do not get in eyes, on skin, on clothing. Do not taste or swallow. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling.
Conditions for safe storage, including any incompatibilities:	Keep container tightly closed. Store in a cool and well-ventilated place. Store in a dry place. Store away from incompatible materials.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
CHLOROPLATINIC ACID - as Pt	TWA	0.002 mg/m ³	US. ACGIH Threshold Limit Values (2011)
	REL	0.002 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	0.002 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	0.002 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA PEL	0.002 mg/m ³	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)

Appropriate Engineering Controls	No data available.
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Individual protection measures, such as personal protective equipment

General information:	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.
Eye/face protection:	Wear safety glasses with side shields (or goggles) and a face shield.
Skin Protection	
Hand Protection:	Chemical resistant gloves
Other:	Wear suitable protective clothing.
Respiratory Protection:	In case of inadequate ventilation use suitable respirator.
Hygiene measures:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Dark yellow
Odor:	Odorless

Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	Approximate 0 °C
Initial boiling point and boiling range:	Approximate 100 °C
Flash Point:	not applicable
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	Approximate 1.0 (20 °C)
Solubility(ies)	
Solubility in water:	Completely Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No dangerous reaction known under conditions of normal use.
Chemical Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur.
Conditions to Avoid:	Contact with incompatible materials. Heat. Light.
Incompatible Materials:	Strong oxidizing agents. Cyanides. Carbonates.
Hazardous Decomposition Products:	Thermal decomposition emits toxic fumes of chlorine.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	Harmful if swallowed. May cause burns of the gastrointestinal tract if swallowed.
Inhalation:	May cause irritation to the respiratory system. May cause allergic respiratory reaction.
Skin Contact:	Causes skin burns. May cause an allergic skin reaction.
Eye contact:	Causes serious eye damage.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)****Oral****Product:** No data available.**Dermal****Product:** No data available.**Inhalation****Product:** No data available.**Repeated dose toxicity****Product:** No data available.**Skin Corrosion/Irritation****Product:** Causes skin burns.**Serious Eye Damage/Eye Irritation****Product:** Causes serious eye damage.**Respiratory or Skin Sensitization****Product:** May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.**Carcinogenicity****Product:** This substance has no evidence of carcinogenic properties.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity**In vitro****Product:** No mutagenic components identified**In vivo****Product:** No mutagenic components identified**Reproductive toxicity****Product:** No components toxic to reproduction**Specific Target Organ Toxicity - Single Exposure****Product:** None known.**Specific Target Organ Toxicity - Repeated Exposure****Product:** None known.**Aspiration Hazard****Product:** Not classified**Other effects:**

None known.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

CHLOROPLATINIC ACID LC 50 (Coho salmon,silver salmon (Oncorhynchus kisutch), 48 h): 5.2 mg/l Mortality
LC 50 (Coho salmon,silver salmon (Oncorhynchus kisutch), 96 h): 2.5 mg/l Mortality

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

CHLOROPLATINIC ACID LC 50 (Oligochaete, worm (Lumbriculus variegatus), 96 h): 30 mg/l Mortality
LC 50 (Oligochaete, worm (Lumbriculus variegatus), 96 h): 4 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: There are no data on the degradability of this product.

BOD/COD Ratio

Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

Product: No data available on bioaccumulation.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: Toxic to aquatic organisms.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated Packaging: Since emptied containers retain product residue, follow label warnings even

after container is emptied.

14. Transport information

DOT

UN Number:	UN 3264
UN Proper Shipping Name:	Corrosive liquid, acidic, inorganic, n.o.s.(PLATINUM CHLORIDE, HYDROCHLORIC ACID)
Transport Hazard Class(es)	
Class(es):	8
Label(s):	8
Packing Group:	II
Marine Pollutant:	Not a Marine Pollutant
Special precautions for user:	—

IMDG

UN Number:	UN 3264
UN Proper Shipping Name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.(PLATINUM CHLORIDE, HYDROCHLORIC ACID)
Transport Hazard Class(es)	
Class(es):	8
Label(s):	8
EmS No.:	F-A, S-B
Packing Group:	II
Marine Pollutant:	Not a Marine Pollutant
Special precautions for user:	—

IATA

UN Number:	UN 3264
Proper Shipping Name:	Corrosive liquid, acidic, inorganic, n.o.s.(PLATINUM CHLORIDE, HYDROCHLORIC ACID)
Transport Hazard Class(es):	
Class(es):	8
Label(s):	8
Marine Pollutant:	Not a Marine Pollutant
Packing Group:	II
Special precautions for user:	—

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Acute (Immediate)

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
CHLOROPLATINIC ACID	10000 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity
CHLOROPLATINIC ACID

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
CHLOROPLATINIC ACID

US. Rhode Island RTK

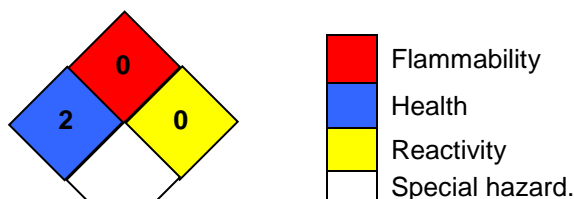
No ingredient regulated by RI Right-to-Know Law present.

Inventory Status:

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.

16. Other information, including date of preparation or last revision

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Issue Date: 04-15-2015

Revision Date: No data available.

Version #: 1.0

Further Information: No data available.

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