1 Identification

- · Product identifier
- · Product Name: 1000 µg/mL Platinum
- · Part Number:

PLPT3-2M PLPT3-2Y

PLPT3-2X

- · Application of the substance / the mixture Certified Reference Material
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

SPEX CertiPrep, LLC.

203 Norcross Ave, Metuchen,

NJ 08840 USA

- · Information department: product safety department
- · Emergency telephone number:

Emergency Phone Number (24 hours)

CHEMTREC (800-424-9300)

Outside US: 703-527-3887

2 Hazard(s) identification

· Classification of the substance or mixture



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



GHS07

- · Signal word Warning
- · Hazard-determining components of labeling:

hydrochloric acid

· Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

· Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see on this label).

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



· HMIS-ratings (scale 0 - 4)



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(Contd. of page 1)

Safety Data Sheet acc. to OSHA HCS

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Product Name: 1000 µg/mL Platinum

· Other hazards

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:	
7647-01-0 hydrochloric acid	10.0%
· Chemical identification of the substance/preparation	
7440-06-4 platinum	0.1%
7732-18-5 water, distilled, conductivity or of similar purity	89.9%

4 First-aid measures

- · Description of first aid measures
- · After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- · After swallowing: If symptoms persist consult doctor.
- · Information for Doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- · Special hazards arising from the substance or mixture No further relevant information available.
- $\cdot \textit{Advice for firefighters}$
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- \cdot Handling:
- $\cdot \textit{Precautions for safe handling}$

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- · Information about protection against explosions and fires: No special measures required.
- $\cdot \textit{Conditions for safe storage, including any incompatibilities}$
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

Product Name: 1000 µg/mL Platinum

(Contd. of page 2)

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

7647-01-0 hydrochloric acid

PEL Ceiling limit value: 7 mg/m³, 5 ppm REL Ceiling limit value: 7 mg/m³, 5 ppm TLV Ceiling limit value: 2.98 mg/m³, 2 ppm

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information

· Appearance:

Form: Liquid

Color: According to product specification

Not applicable.

Not applicable.

Odor: CharacteristicOdour Threshold: Not applicable.

· pH-value:

· Flammability (solid, gaseous):

• Change in condition

Melting point/Melting range:
Boiling point/Boiling range:

• Flash point:

Not applicable.

· Ignition temperature:

Decomposition temperature: Not applicable.

· Auto igniting: Product is not selfigniting.

(Contd. on page 4)

Product Name: 1000 µg/mL Platinum

		(Contd. of page 3)
· Danger of explosion:	Product does not present an explosion hazard.	
· Explosion limits:		
Lower:	Not applicable.	
Upper:	Not applicable.	
· Vapor pressure at 20 °C (68 °F):	23 hPa (17 mm Hg)	
· Density at 20 °C (68 °F)	1.03545 g/cm³ (8.641 lbs/gal)	
Relative density	Not applicable.	
· Vapor density	Not applicable.	
· Evaporation rate	Not applicable.	
· Solubility in / Miscibility with		
Water:	Not miscible or difficult to mix.	
· Partition coefficient (n-octanol/water): Not applicable.		
· Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
· Solvent content:		
Organic solvents:	0.0 %	
Water:	89.9 %	
Solids content:	0.1 %	
· Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- $\cdot \textit{Conditions to avoid No further relevant information available}.$
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: No sensitizing effects known.
- $\cdot \textit{Additional toxicological information:}$

The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)	
7647-01-0 hydrochloric acid	3
· NTP (National Toxicology Program)	
None of the ingredients is listed.	
· OSHA-Ca (Occupational Safety & Health Administration)	

12 Ecological information

None of the ingredients is listed.

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- $\cdot \textit{Bioaccumulative potential No further relevant information available}.$
- · Mobility in soil No further relevant information available.

(Contd. on page 5)

Product Name: 1000 µg/mL Platinum

(Contd. of page 4)

- $\cdot \textit{Additional ecological information:}$
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- **PBT**: Not applicable. **vPvB**: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- · Uncleaned packagings:

· Limited quantities (LQ)

· Recommendation: Disposal must be made according to official regulations.

4 Transport information	
· UN-Number	
· DOT, ADR, IMDG, IATA	UN1789
· UN proper shipping name	
· DOT, IATA	Hydrochloric acid
· ADR	1789 Hydrochloric acid
· IMDG	HYDROCHLORIC ACID
· Transport hazard class(es)	
\cdot DOT	
CORROSIVE S	
· Class	8 Corrosive substances
· Label	8
· Class	8 Corrosive substances
· Label	8
· Packing group · DOT, ADR, IMDG, IATA	II
· Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Corrosive substances
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups	Acids
· Stowage Category	E
· Transport in bulk according to Annex II of MARPO	
Code	Not applicable.
· Transport/Additional information:	
$\cdot ADR$	
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
\cdot IMDG	

1L

Product Name: 1000 µg/mL Platinum

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• Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

UN 1789 HYDROCHLORIC ACID, 8, II

15 Regulatory information

· UN "Model Regulation":

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

7647-01-0 hydrochloric acid

· Section 313 (Specific toxic chemical listings):

7647-01-0 hydrochloric acid

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

7647-01-0 hydrochloric acid

A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



GHS07

- · Signal word Warning
- · Hazard-determining components of labeling:

hydrochloric acid

· Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

· Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Specific treatment (see on this label).

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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Safety Data Sheet acc. to OSHA HCS

Printing date 03/15/2016 Reviewed on 03/15/2016

Product Name: 1000 µg/mL Platinum

(Contd. of page 6)

· Department issuing SDS: product safety department

· Contact:

SPEX CertiPrep, LLC. 1-732-549-7144

· Date of preparation / last revision 03/15/2016 / -

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA) PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Sey Irrit. 2A: Serious eye damageleye irritation, Hazard Category 2A STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3