

## MATERIAL SAFETY DATA SHEET

**Revision Number: 1.4**  
**Revision Date: September 28, 2015**

### Section 1 – Product and Company Information

Product Name: Platinum (-) Nanoparticles  
Catalog Number: 107PT  
Unit Size: 100 ml - 1 L  
Manufacturer/Supplier: Sciventions Inc., 60 St. George Street, Suite 331,  
Toronto, ON, M5S 1A7, Canada  
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### Section 2 – Composition, Information on Ingredients:

Component A: Water  
CAS 7732-18-5, > 99% by weight

Component B: Platinum (as nanocrystal compound)  
CAS Platinum 7440-06-4, < 0.3% by weight

Component C: Sodium polyacrylate derivative  
CAS (sodium polyacrylate) 9003-04-7, < 0.7% by weight

### Section 3 – Hazards Identification

Emergency Overview:  
Colour: Black  
Physical form: Liquid

Major Health Hazards: This substance is a potential sensitizer. Prolonged or repeated exposure may cause an allergic reaction in certain sensitive individuals.

Physical Hazards: None.

Potential toxicity: While no health effects have been determined for nanocrystalline forms of this material, it is recommended that appropriate precautions be taken to limit exposure to this material.

HMIS Classification  
Health Hazard: 2  
Flammability: 0  
Physical hazards: 0

WHMIS Classification  
Not WHMIS controlled

*Carcinogen status:*

OSHA: No  
NTP: No  
IARC: No

### Section 4 – First Aid Measures:

Eye contact: If this chemical gets into the eyes, remove any contact lenses at once and irrigate immediately for at least 15 minutes, occasionally lifting upper and lower lids. Seek medical attention immediately.

Skin contact: If this chemical contacts the skin, remove contaminated clothing and wash immediately with soap and water.

Inhalation: If this chemical has been inhaled, remove from exposure, begin rescue breathing (using universal precautions) if breathing has stopped and CPR if heart action has stopped. Transfer promptly to a medical facility.

Ingestion: If this chemical has been swallowed, was out mouth with water provided the person is conscious. Seek medical attention.

## Section 5 – Fire Fighting Measures

This chemical is non-flammable. Use any extinguishing agent suitable for surrounding fires. Toxic fumes may be produced in the fire. Use only self-contained, full face breathing apparatus which are operated in a pressure demand or other positive pressure modes when firefighting.

## Section 6 – Accidental Release Measures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Absorb spill onto an appropriate material. Collect and dispose of all waste in accordance with applicable laws.

## Section 7 – Handling and Storage

For improved performance, store at 2-6°C. Use appropriate laboratory work practices, including wearing of laboratory coats, gloves, and protective eyewear. Keep away from alcohols and oxidizing agents.

## Section 8 - Exposure Controls/Personal Protection:

No exposure limits have been determined for nanocrystalline forms of this material. The exposure limits below are based off the individual bulk chemical components. It is recommended that appropriate precautions be taken to limit exposure to this material.

### *Exposure Limits:*

Platinum:  
TWA 1 mg/m<sup>3</sup> (REL) from NIOSH

### *Protective Equipment:*

Wear appropriate gloves, protective clothing and eyewear and follow safe laboratory practices. Emergency eye wash station and quick drench shower should be provided in the immediate work area as per the ANSI Z358.1 guidelines.

## Section 9 – Physical and Chemical Properties

Physical State: Liquid

Colour: Black

Odor: Unknown.

Boiling Point: 100°C (Water)

Freezing Point: 0°C (Water)

Vapour pressure: N/A

Specific gravity (water = 1): N/A

pH: 5-6

## Section 10 – Reactivity

Chemical stability: Stable if used according to specifications.

Conditions to avoid: Reactive with alcohols and oxidizing agents.

Incompatible Materials: Aluminum, acetone, arsenic, ethane, hydrazine, hydrogen peroxide, lithium, phosphorus, selenium, tellurium, fluorides.

Decomposition products: Carbon monoxide, carbon dioxide, platinum oxide.

## Section 11 – Toxicological information:

No health effects have been determined for nanocrystalline forms of this material. The below toxicological information is for the equivalent bulk material.

### Short Term Exposure:

Skin: May be absorbed through the skin.

Eyes: May cause eye irritation.

Inhalation: Material may be irritation to the mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

Long Term Exposure: This substance is a potential sensitizer. Prolonged or repeated exposure may cause an allergic reaction in certain sensitive individuals.

**Section 12 – Ecological Information:**

Do not allow material to be released to the environment in any form without proper permits and waste-disposal precautions.

**Section 13 – Transportation Information:**

U.S. DOT: Not regulated

Canadian Transportation of Dangerous Goods: Not regulated

**Section 14 – Disposal:**

Dispose in accordance with all local, state/provincial and federal regulations.

**Section 15 – Regulatory Information:**U.S. Regulations

CERCLA: No

TSCA listed: Yes

Sara Title III, sec 302, 304: No

Canadian Regulations

DSL listed: Yes

NDSL listed: No

WHMIS classification: None

**Section 16 – Other Information:**LEGAL NOTICE

Sciventions Inc. requests all users of this product to study this Material Safety Data Sheet (MSDS) and become aware of all product hazards and safety information. The data in this MSDS relate only to the specific product designated herein and do not relate to use of such product in combination with any other material or in any process. To promote the safe use of this product, all users should notify their employees, agents and contractors of the information in this MSDS and any other product hazards and safety information.

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