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## SAFETY DATA SHEET

Section 1- IDENTIFICATION		
COMPOSITION <b>Pt</b>		PRODUCT NAME <b>Platinum</b>
SUPPLIER: <b>Plasmaterials, Inc. 2268 Research Drive Livermore, CA 94550 Ph: 925-447-4030</b>	RECOMMENDED USE: <b>Laboratory Chemicals Scientific Research</b>	EMERGENCY TELEPHONE NUMBERS <b>US: 001-800-424-9300 Europe: 001-703-527-3887</b>

Section 2- HAZARD(S) IDENTIFICATION	
<b>Physical Hazards:</b> Not Classified	<b>Health Hazards:</b> Not Classified
<b>Environmental Hazards:</b> Not Classified	<b>OSHA Defined Hazards:</b> Not Classified
<b>LABEL ELEMENTS:</b>	
<b>Hazard Symbol:</b> None	<b>Signal Word:</b> None
<p style="text-align: center;"><b>HAZARD STATEMENTS</b></p> <p>-The substance does not meet the criteria for classification</p> <p style="text-align: center;"><b>PRECAUTIONARY STATEMENTS</b></p> <p>-P264: Wash face, hands and any exposed skin thoroughly after handling            -P270: Do not eat, drink or smoke when using this product            -P420: Store away from incompatible materials            -P501: Dispose of contents/container to an approved waste disposal plant</p> <p><b>Hazards not otherwise classified (HNOC):</b>            -None identified.</p>	

Section 3- COMPOSITION/INFORMATION ON INGREDIENTS		
<b>COMPONENT</b>	<b>CAS-No</b>	<b>Molecular Weight</b>
<b>Platinum</b>	<b>7440-06-4</b>	<b>195.08 g/mol</b>

Section 4- FIRST AID MEASURES
<p><b>GENERAL ADVICE:</b> Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.</p> <p><b>Inhalation:</b> Remove victim from exposure to fresh air. Give oxygen if breathing is difficult. If not breathing, give artificial respiration. Consult a physician if symptoms develop or persist.</p> <p><b>Skin Contact:</b> Wash off with soap and water. Consult a physician if irritation develops and/or persists.</p> <p><b>Eye Contact:</b> Flush eyes with plenty of water, lifting upper and lower lids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and/or persists.</p> <p><b>Ingestion:</b> Rinse mouth with water. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.</p> <p><b>Most Important Symptoms/Effects:</b> The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11.</p> <p><b>Indication of any Immediate Medical Attention and Special Treatment Needed:</b> No data available</p>

## Section 5- FIREFIGHTING MEASURES

**Suitable Extinguishing Media:**

Water Spray, Alcohol-Resistant Foam, Dry Chemical Powder, Carbon Dioxide (CO<sub>2</sub>)

**Unsuitable Extinguishing Media:**

None Known

**Specific Hazards Arising from the Chemical:**

Platinum Oxide

**General Fire Hazards:**

No unusual fire or explosion hazards noted

**Protective Equipment & Precautions for Firefighters:**

As in any fire, Firefighters must wear full face, self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective clothing to prevent contact with skin and eyes.

**Specific Methods:** Use standard firefighting procedures and consider the hazards of other involved materials.

## Section 6- ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Keep unnecessary personnel away. Avoid dust formation. Avoid breathing vapors, mist or gas. For personnel protection see Section 8.

**Environmental Precautions:** Avoid discharge into drains, water courses or onto the ground

**Methods for Containment & Clean Up:** Sweep and shovel. Keep in suitable, closed containers for disposal. Never return spills to original containers for re-use. For waste disposal see Section 13.

## Section 7- HANDLING AND STORAGE

**Handling:** Use care in handling and storage. Provide adequate ventilation at places where dust is formed. Avoid breathing dust, fume, gas, mist, vapors and/or spray. Observe good industrial hygiene practices.

**Storage:** Store in original tightly closed container in a dry, cool and well-ventilated place. Store away from incompatible materials.

## Section 8- EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines:****Occupational Exposure Limits/Components with Workplace Control Parameters:**

Component	CAS-No.	Value	Control Parameters	Basis
Platinum	7440-06-4	TWA	1 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
		Remarks	Upper Respiratory Tract Irritation Asthma	
		TWA	1 mg/m <sup>3</sup>	USA NIOSH Pocket Guide to Chemical Hazards Materials Recommended Exposure Limits
		PEL	1 mg/m <sup>3</sup>	California Permissible Exposure Limits for Chemical Contaminants (Title 8, Article 107)

**Biological Limit Values:** No biological exposure limits noted for the substance

**Appropriate Engineering Controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

**Control Parameters:** Follow standard monitoring procedures

**Personal Protective Equipment:**

**Eye/Face Protection:** Wear safety glasses with side shields or goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Skin and Body Protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash

and dry hands.

Wear suitable protective clothing. The type of protective clothing equipment must be selected according to the concentration and amount of the dangerous substance and to the specific workplace.

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Thermal Hazards:** Wear appropriate thermal protective clothing when necessary.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice. When using do not smoke. Keep away from food and drink. Wash thoroughly after handling and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Contaminated work clothing should not be allowed out of the workplace.

## Section 9- PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Solid

**Odor:** No information available

**Odor Threshold:** No information available

**pH:** No information available

**Melting Point/Range:** 1772°C / 3222°F

**Boiling Point/Range:** 3827°C / 6921°F

**Flash Point:** No information available

**Evaporation Rate:** No information available

**Flammability (solid,gas):** No information available

**Flammability or Explosive Limits:**

**Upper:** No data available

**Lower:** No data available

**Vapor Pressure:** No information available

**Vapor Density:** No information available

**Relative Density:** 21.45 g/cm<sup>3</sup>

**Solubility:** No information available

**Partition coefficient; n-octanol/water:** No information available

**Auto Ignition Temperature:** No information available

**Decomposition Temperature:** No information available

**Viscosity:** No information available

**Explosive Properties:** No information available

**Oxidizing Properties:** No information available

## Section 10- STABILITY AND REACTIVITY

**Reactive Hazard:** Stable and non-reactive under normal conditions of use, storage and transport

**Stability:** Stable under normal conditions

**Conditions to Avoid:** Contact with incompatible materials

**Incompatible Materials:** Strong oxidizing agents, Alcohols, Aluminum, Phosphorus

**Hazardous Decomposition Products:** Platinum Oxide

**Hazardous Polymerization:** No information available

**Hazardous Reactions:** No information available

## Section 11- TOXICOLOGICAL INFORMATION

**Information on likely Routes of Exposure:**

**Inhalation:** No information available

**Skin Contact:** No information available

**Eye Contact:** No information available

**Ingestion:** No information available

**Symptoms Related to the Physical, Chemical and Toxicological Characteristics:** No information available

**Information on Toxicological Effects:**

**Acute Toxicity:** No information available  
**Skin Corrosion/Irritation:** No information available  
**Serious eye damage/irritation:** No information available  
**Respiratory or Skin Sensitization:** No information available  
**Carcinogenicity:** This product is not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA.  
**Germ Cell Mutagenicity:** No information available  
**Reproductive Effects:** No information available  
**Development Effects:** No information available  
**Specific Target Organ Toxicity – single exposure:** No information available  
**Specific Target Organ Toxicity – repeated exposure:** No information available  
**Aspiration Hazard:** No information available  
**Chronic Effects:** No information available  
**-To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.**

**Section 12- ECOLOGICAL INFORMATION**

**Toxicity:** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.  
**Persistence and Degradability:** No information available  
**Bioaccumulation/Accumulation:** No information available  
**Mobility in Soil:** No information available  
**Results of PBT & vPvB assessment:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.  
**Other Adverse Effects:** No information available.

**Section 13- DISPOSAL CONSIDERATIONS**

**Waste Disposal Methods:** Collect and reclaim or dispose in sealed containers to a licensed disposal company. Dispose of contaminated packaging as unused product. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Section 14- TRANSPORT INFORMATION**

**DOT:** Not regulated as dangerous goods  
**IATA:** Not regulated as dangerous goods  
**IMDG/IMO:** Not regulated as dangerous goods

**Section 15- REGULATORY INFORMATION**

**US Federal Regulations:**  
**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt.D):** Not regulated  
**U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):** Not Listed  
**SARA 302 Extremely Hazardous Substance:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302  
**SARA 313 (TRI Reporting):** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313  
**SARA 311/312 Hazardous Chemical:** No  
**CERCLA Hazardous Substance List (40 CFR 302.4):** Not Listed  
**US Massachusetts RTK – Substance List:**

Component	CAS No.	Revision Date
Platinum	7440-06-4	1993-02-16

**US New Jersey RTK – Substances: Listed substance:**

Component	CAS No.	Revision Date
Platinum	7440-06-4	1993-02-16

**US Pennsylvania RTK Hazardous Substances:**

Component	CAS No.	Revision Date
Platinum	7440-06-4	1993-02-16

**US California Proposition 65:** This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

## **Section 16- OTHER INFORMATION**

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulations are subject to change, the conditions of handling and use, or misuse are beyond our control, Plasmaterials, Inc. 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. Users should satisfy themselves that they have all current data relevant to their particular use.

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The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

REVISION: 04-26-16