

# SAFETY DATA SHEET

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## SECTION 1. IDENTIFICATION

**Product Identifier:** Platinum on Silica

**Product Code:** PT-OSIO-01-P

**CAS Number:** 7440-06-4

**Relevant identified uses of the substance:** Scientific research and development

Supplier details:

American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351  
Emergency telephone number:  
+1 800-424-9300

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## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)

The substance is not classified according  
to the Globally Harmonized System (GHS).

Hazards not otherwise classified

No data available

GHS label elements

N/A

Hazard pictograms

N/A

Signal word

N/A

Hazard statements

N/A

WHMIS classification

Not controlled

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

Health (acute effects) = 1

Flammability = 0

Physical Hazard = 0

Other hazards  
Results of PBT and vPvB assessment  
PBT:  
N/A  
vPvB:  
N/A

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## **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances  
CAS No. / Substance Name:  
Platinum, 4% on silica

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## **SECTION 4. FIRST AID MEASURES**

Description of first aid measures  
If inhaled:  
Supply patient with fresh air. If not breathing, provide artificial respiration. Keep patient warm.  
Seek immediate medical advice.  
In case of skin contact:  
Immediately wash with soap and water; rinse thoroughly.  
Seek immediate medical advice.  
In case of eye contact:  
Rinse opened eye for several minutes under running water. Consult a physician.  
If swallowed:  
Seek medical treatment.  
Information for doctor  
Most important symptoms and effects, both acute and delayed  
No data available  
Indication of any immediate medical attention and special treatment needed  
No data available

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media  
Suitable extinguishing agents  
Product is not flammable. Use fire-fighting measures that suit the surrounding fire.  
Special hazards arising from the substance or mixture  
If this product is involved in a fire, the following can be released:  
Metal oxide fume  
Silicon oxide  
Advice for firefighters  
Protective equipment:  
Wear self-contained respirator.  
Wear fully protective impervious suit.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Environmental precautions:

Do not allow material to be released to the environment without official permits.

Methods and materials for containment and cleanup:

Pick up mechanically.

Prevention of secondary hazards:

No special measures required.

Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information

on personal protection equipment.

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## SECTION 7. HANDLING AND STORAGE

Handling

Precautions for safe handling

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Information about protection against explosions and fires:

The product is not flammable

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility:

No data available

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed containers.

Specific end use(s)

No data available

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

Silica, amorphous-diatomaceous earth  
mg/m<sup>3</sup>

ACGIH TLV 10 (inhalable particulate)

3 (respirable particulate)

Germany TWA

4 (inhalable fraction of the aerosol)

Ireland TWA 1.5

United Kingdom TWA 1.2 (respirable dust)

USA PEL 20 mppcf

Silica, amorphous

mg/m<sup>3</sup>  
Ireland TWA 3 (respirable); 6 (total inhalable)  
United Kingdom TWA 2.4 (respirable); 6 (total inhalable)  
Silica, amorphous-fused  
mg/m<sup>3</sup>  
ACGIH TLV 0.1 (respirable particulate)  
Finland TWA 5  
Germany TWA 0.3 (respirable fraction of the aerosol)  
Ireland TWA 0.1 (respirable)  
United Kingdom TWA 0.3 (respirable dust)  
Silica, amorphous-fume  
mg/m<sup>3</sup>  
ACGIH TLV 2 (respirable particulate)  
Germany TWA 0.3 (respirable fraction of the aerosol)  
Silica, amorphous-precipitated and gel  
mg/m<sup>3</sup>  
ACGIH TLV 10 (inhalable particulate)  
Germany TWA  
4 (inhalable fraction of the aerosol)  
USA PEL 20 mppcf  
Silica, crystalline-quartz  
mg/m<sup>3</sup>  
ACGIH TLV 0.1  
Austria MAK 0.15  
Belgium TWA 0.1  
Finland TWA 0.2  
France VME 10/(X+2)  
Germany MAK 0.15  
Korea TLV 0.1  
Netherlands MAC-TGG 0.075  
Norway TWA 0.3 (total dust)  
0.1 (resp. dust)  
Russia 14-STEL  
Sweden NGV 0.1 (resp. dust)  
Switzerland MAK-W 0.15  
United Kingdom TWA 0.3 (respirable)  
USA PEL 10/(% resp. SiO<sub>2</sub>+2)  
30/(% SiO<sub>2</sub>+2) (total dust)  
Silica, crystalline-tridymite and cristobalite mg/m<sup>3</sup>  
ACGIH TLV 0.05 (respirable particulate)  
Belgium TWA 0.05  
Denmark TWA 0.05  
Finland TWA 0.1  
France TWA 10  
Germany TWA 0.15 (respirable fraction of the aerosol)  
Ireland TWA 0.4 (respirable)  
Netherlands TWA 0.075 (respirable)  
Sweden TWA 0.05  
Switzerland TWA 0.15  
USA PEL 0.5 (value calculated for quartz-respirable dust)  
Silica, crystalline-tripoli  
mg/m<sup>3</sup>  
ACGIH TLV 0.1 (of contained respirable quartz)  
Belgium TWA 0.1  
Germany TWA 0.15 (respirable fraction of the aerosol)

Ireland TWA 0.4 (respirable)  
USA PEL See quartz  
Platinum metal and soluble salts (as Pt)  
mg/m<sup>3</sup>  
ACGIH TLV 1 (metal); 0.002 (soluble salts)  
Austria MAK 1 (metal); 0.002 (soluble salts)  
Belgium TWA 1 (metal); 0.002 (soluble salts)  
Denmark TWA 0.002 (soluble salts)  
Finland TWA 1 (metal); 0.002 (soluble salts)  
France VME 1 (metal)  
Germany MAK 0.002 (soluble salts)-Ceiling  
Hungary TWA 0.001; 0.002-STEL (soluble salts)  
Korea TLV 1 (metal); 0.002 (soluble salts)  
Netherlands MAC-TTG 1 (metal); 0.002 (soluble salts)  
Norway TWA 0.002  
Switzerland MAK-W 0.002  
United Kingdom TWA 5 (metal); 0.002 (soluble salts)  
USA PEL 0.002

Additional information:

No data

Exposure controls

Personal protective equipment

Follow typical protective and hygienic practices for handling chemicals.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Maintain an ergonomically appropriate working environment.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Protection of hands:

Impervious gloves

Inspect gloves prior to use.

The selection of suitable gloves not only

depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.

Penetration time of glove material (in minutes)

No data available

Eye protection:

Safety glasses

Body protection:

Protective work clothing.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:

Form:

Powder

Color:

Grey

Odor:

No data available

Odor threshold:

No data available.

pH:  
N/A  
Melting point/Melting range:  
No data available  
Boiling point/Boiling range:  
No data available  
Sublimation temperature / start:  
No data available  
Flammability (solid, gas)  
No data available.  
Ignition temperature:  
No data available  
Decomposition temperature:  
No data available  
Autoignition:  
No data available.  
Danger of explosion:  
Product does not present  
an explosion hazard.  
Explosion limits:  
Lower:  
No data available  
Upper:  
No data available  
Vapor pressure:  
N/A  
Density:  
No data available  
Relative density  
No data available.  
Vapor density  
N/A  
Evaporation rate  
N/A  
Solubility in / Miscibility with  
Water:  
Insoluble  
Partition coefficient (n-octanol/water):  
No data available.  
Viscosity:  
Dynamic:  
N/A  
Kinematic:  
N/A  
Other information  
No data available

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity  
No data available  
Chemical stability  
Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions

No dangerous reactions known

Conditions to avoid

No data available

Incompatible materials:

No data available

Hazardous decomposition products:

Metal oxide fume

Silicon oxide

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## SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

No effects known.

LD/LC50 values that are relevant for classification:

No data

Skin irritation or corrosion:

May cause irritation

Eye irritation or corrosion:

May cause irritation

Sensitization:

Platinum salts, especially ionic platinum halogeno complexes, may cause severe allergic reactions.

Germ cell mutagenicity:

No effects known.

Carcinogenicity:

IARC-3: Not classifiable as to carcinogenicity to humans.

Reproductive toxicity:

No effects known.

Specific target organ system toxicity - repeated exposure:

No effects known.

Specific target organ system toxicity - single exposure:

No effects known.

Aspiration hazard:

No effects known.

Subacute to chronic toxicity:

Exposure to platinum containing dusts or fumes may cause irritation, sensitization reactions and asthma. Effects include sneezing, coughing, tightness in the chest, dyspnea and wheezing. Cyanosis is possible. Chronic exposure may result in pulmonary fibrosis.

Subacute to chronic toxicity:

No effects known.

Subacute to chronic toxicity:

Prolonged inhalation of silica may cause silicosis, the formation of adhesions in the lungs progressing to the formation of a continuous mass of fibrous tissue. If the disease continues, death may occur. Tuberculosis is often found in people with silicosis. Some forms of silica are more fibrogenic than others. Some forms of crystalline silica have shown carcinogenic, tumorigenic and neoplastic effects in laboratory animals. Amorphous silica is less harmful by inhalation than crystalline forms. Amorphous silica may, however, contain small amounts of crystalline silica.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

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## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity

Aquatic toxicity:

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Additional ecological information:

Do not allow material to be released to the environment without official permits.

Avoid transfer into the environment.

Results of PBT and vPvB assessment

PBT:

N/A

vPvB:

N/A

Other adverse effects

No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods

Recommendation

Consult official regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation:

Disposal must be made according to official regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

Not a hazardous material for transportation.

UN-Number

DOT, IMDG, IATA

None

UN proper shipping name

DOT, IMDG, IATA

None

Transport hazard class(es)

DOT, ADR, IMDG, IATA

Class

None

Packing group

DOT, IMDG, IATA



None

Environmental hazards:

N/A

Special precautions for user

N/A

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

N/A

Transport/Additional information:

Not dangerous according to the above specifications.

DOT

Marine Pollutant (DOT):

No

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## SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

GHS label elements

N/A

Hazard pictograms

N/A

Signal word

N/A

Hazard statements

N/A

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings)

Substance is not listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer

Substance is not listed.

Prop 65 - Developmental toxicity

Substance is not listed.

Prop 65 - Developmental toxicity, female

Substance is not listed.

Prop 65 - Developmental toxicity, male

Substance is not listed.

Information about limitation of use:

For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No.1907/2006.

Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use)

Substance is not listed.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

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## 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.