SAFETY DATA SHEET

5% Platinum on Silica (5 wt% Pt/SiO_2)

O·I·Analytical
a xylem brand

1. Product and Company Identification

Product name: 5% Platinum on Silica (5 wt% Pt/SiO_2)
Product codes: 331940
Intended use: Multiple uses in Research and development, Laboratory chemicals, Manufacture of substances
Supplier: OI Analytical, P.O. Box 9010, College Station, TX 77842-9010, Phone: (979) 690-1711, Fax: (979) 690-0440

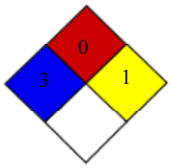
Emergency Telephone: 1-800-424-9300 (Chemtrec).

2. Composition, Information on Ingredients

Chemical characterization: Mixture (5 wt% Platinum on 95 wt% Silica)
Chemical components:
Silica CAS# 7631-86-9
Platinum: CAS# 7440-06-4
Non Hazardous Ingredients: None
Risk Phrases: None listed
Additional Information: None known

3. Hazards Identification

Classification of the substance or mixture: The hazardous nature of the catalyst mixture is unknown. However, free silica may cause cancer and may cause damage to the lung, spleen, blood and the endocrine system through prolonged exposure. Route of exposure is inhalative. This material is a non flammable solid, harmful if inhaled, may cause an allergic skin reaction and respiratory irritation.
Signal word: Danger
Emergency overview: This product is in the form of dark grey solid. In case of fire: Use carbon dioxide, dry sand, dry chemical or alcohol-resistant foam for extinction. Wear protective gloves, protective clothing, eye/face protection.
Potential health effects: The hazardous nature of the catalyst mixture is unknown. Free silica may cause cancer and severe irritation in the event of inhalation, eye contact, skin contact or ingestion
HMIS (Hazardous Materials Identification System) ratings (Scale 0-4)



Health	3
Fire	0
Reactivity	1

Other Hazards: Not applicable

4. First Aid Measures

Description of First aid measures: Consult doctor immediately and show this safety data sheet.
Inhalation: If inhaled in, supply fresh air. If not breathing, give artificial respiration. Consult a physician.
Eye contact: Rinse eye with running water for several minutes then consult doctor immediately.
Skin contact: Wash with water and soap and rinse thoroughly for several minutes
Ingestion: Rinse mouth with water and seek medical treatment immediately.
Notes to Physician: No information available

5. Fire and Explosion Data

Extinguishing media

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Suitable extinguishing agents: This product is not flammable. Use water spray, sand, dry extinguishing powder or carbon dioxide depending on the surrounding requirement.
Special hazards arising from the substance or mixture: Upon burning or during fire it can release metal oxide fumes
Advice for fire-fighters
Protective equipment: Wear self contained breathing apparatus and fully protective resistant suite for fighting if necessary.
Additional information: Use water spray to cool exposed and unexposed containers and to protect personnel

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Wear personal protective equipment. Avoid dust formation and avoid breathing dust, vapors, mist or gas. Make sure to have adequate ventilation. Vacate personnel to safe areas.
Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains, sewage or soil. Do not release the material into environment without proper government permits.
Methods and material for containment and cleaning up
If a spill or leak occurs, stop the leak if it can be done without risk. Make sure to have adequate ventilation. Sweep up and pick up mechanically and place in container for disposal according to local regulations.

7. Handling and Storage

Precautions for safe handling
Keep container tightly sealed
Avoid agitation that may generate dust or mist. Provide appropriate exhaust ventilation at places where dust is formed.
Conditions for safe storage including any incompatibilities
Keep container tightly closed in a dry, well-ventilated and cool place. Store away from oxidizers.
Specific end use: No information available

8. Exposure controls / Personal Protection

Use the product inside a Chemical fume hood designed for hazardous chemicals
Control parameters
Components with workplace control parameters
Silica- SiO_2 – Silicon (IV) oxide
USA REL: 0.05 mg/m^3 respirable dust, long-term value
USA TLV: 0.025 mg/m^3 respirable fraction, long-term value
Canada EL – 0.025 mg/m^3 (long term value, ACGIH A2, IARC 1)
Canada EV –0.1 mg/m^3 (long term value, respirable fraction)
Platinum (Based on 100% value)
USA TWA – 0.002 mg/m^3 (fume, dust and mist)
UK TWA – 0.002 mg/m^3 (fume)
Germany MAK – 0.002 mg/m^3 for fume and 1 mg/m^3 for dust
Russia STEL – 0.002 mg/m^3 (dust)
Follow and limit to permissible control levels in the respective local countries as per the current requirements
Engineering control
Use process enclosures, local exhaust ventilation or other engineering controls to minimize dust and exposure. An emergency eye wash station and safety shower should be located near the work station.
Exposure control
Personal Protective Equipment (PPE)
General protective and hygienic measures
This material should be handled in accordance with usual safety practices. To prevent exposure to harmful levels of this material, personal protective equipment (PPE) is recommended.
Breathing/Respirator equipment: Use suitable respirator when high concentrations are present
Protection of hands: Use appropriate protective gloves and check their condition before each use. The selection of quality gloves depends on the material and conditions. Dispose of the contaminated gloves as per the local safety laws.

Eye protection
Safety glasses equipped with side-shields are recommended as minimum protection.
Skin and Body protection
Avoid skin contact. Wear appropriate laboratory coats and handle with gloves.
Control of environmental exposure
Prevent further spill or leakage if safe to do so. Do not allow the material to enter into drain or sewage.

9. Physical and Chemical Properties

Physical state
Appearance: Dark grey spheres
Odor: Not known
pH: Not applicable
Vapor pressure: Not applicable
Vapor density: Not applicable
Evaporation rate: Not applicable
Viscosity: Not applicable
Boiling point: Not determined
Freezing/Melting point: Not applicable
Decomposition temperature: Not determined
Solubility: Insoluble
Specific gravity/Density: Not determined
Molecular Formula: Not applicable
Molecular weight : Not applicable

Flammability: Not determined
Ignition temperature: Not determined
Auto igniting: Not determined
Danger of explosion- Explosion limits:
Upper: Not determined
Lower: Not determined
Solvent content: 0%
Solid content: 100%
Other information: None

10. Stability and Reactivity Data

Chemical Stability: Stable under recommended storage
Reactivity: No data available
Conditions to avoid: Decomposition will not occur under normal usage and storage specifications
Possible hazardous reactions: No data available
Incompatibility (Materials to avoid): Oxidizing agents, acids, halogens
Hazardous decomposition products: Metal oxide fumes
Hazardous polymerization: Not applicable

11. Toxicological Information

The hazardous nature of the catalyst mixture is unknown. However, free silica may cause health effects.
Toxicological effects information
Acute toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.
The registry of Toxic effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.

Skin: May cause severe skin irritation and burns
Eye: May cause severe irritation and eye damage
Sensitization: May cause an allergic skin reaction
Germ Cell Mutagenicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for this substance.
Carcinogenicity: Silica may cause cancer
IARC-1: Carcinogenic to humans: Sufficient evidence of carcinogenicity
ACGIH A2: Suspected human carcinogen: Agent is carcinogenic in experimental animals at dose levels, by route of administration, at site, of histologic type or by mechanism considered relevant to worker exposure. Available epidemiologic studies are conflicting or insufficient to confirm an increased risk of cancer in exposed humans
NTP-K: Known to be carcinogenic: Sufficient evidence from human studies.
The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance.
Developmental - Reproductive toxicity: No data available
Aspiration hazard: No effects known
Specific target organ system toxicity – repeated exposure: May cause damage to the lung, spleen, blood and the endocrine system through prolonged exposure. Route of exposure is inhalative.
Target organs - repeated and single exposure: No effects known.
Subacute to chronic Toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity for this substance.
Additional information:
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological Information

General details: This product is not harmful to the environment.
Toxicity
Aquatic toxicity
No data available
Persistence and degradability
No data available
Bioaccumulative potential
No data available
Mobility in soil
No data available
Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required or not conducted
Other adverse effects
No data available
General notes:
Do not allow material to be released to the environment without proper governmental permits. Avoid transfer into the environment.

13. Disposal Considerations

Waste treatment methods
Product: Offer surplus and non-recyclable solutions to a licensed disposal company.
Recommendation: Follow local, state or national regulations to ensure proper disposal
Contaminated packaging: Dispose of as unused product.
Uncleaned packagings: Disposal must be made according to official regulations

14. Transportation Information

Ground - United States Department of Transportation

Not dangerous goods

Ship - International Maritime Dangerous Goods Code

Not dangerous goods

Air - International Air Transport Association

Not dangerous goods

15. Regulatory Information

National regulations

Components of this product are listed in the U.S. Environmental Protection Agency Toxic substances Control Act Chemical Substance inventory. Components of this product are listed in the Canadian Domestic Substances List (DSL)

SARA 313 Components (Specific toxic chemical listings)

Substance is not listed

State regulations

California Prop. 65 Components – Chemicals to known cause cancer

Silica CAS# 7631-86-9

Prop 65 – Developmental Toxicity – Substance is not listed

Silica CAS# 7631-86-9

Substance of very high concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed

REACH Preregistered Substances: Substance is listed

Information about limitation of use: For use only by technically qualified individuals. User must follow local regulations as per the requirement.

16. Other information

The information presented in this Safety Data Sheet is based on data believed to be accurate as of the date this Safety Data Sheet was prepared. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of the information provided above, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license. Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. The statements and information in this Safety data Sheet are given for information only and do not constitute a contractual guarantee of a product's properties.

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