Platinum Plus® Safety Data Sheet

(REACH Regulation (EC) N° 1907/2006 - N ° 453/2010)

SECTION 1: Identification of the Substance/ Mixture and of the Company/Undertaking

1.1 Product identifier:

Manufacturer:

Product Name: Platinum Plus®

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:

> Relevant identified uses of the substance or mixture: Manufacturing of a fixed or removable dental prosthesis in a dental laboratory

1.3 Details of the Supplier of the Safety Data Sheet:

The Argen Corporation 5855 Oberlin Drive San Diego, CA 92121 U.S.A.

Fax: 1-858-626-8686

E-mail address of competent person responsible for the SDS: info@argen.com

1.4 Emergency telephone number

Emergency telephone number: Chemtrec: 1-703-741-6090 (collect calls accepted - German and English)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Classification information

This product does not meet the classification criteria in (EC) N° 1272/2008 (CLP)

This product does not meet the labeling criteria stated in $67/548/{\rm EWG}$ and 1999/4 $5/{\rm EC}$

2.2 Label elements

Labeling is in accordance with (EC) No 1272/2008 (CLP Regulation). Label elements in the solid form which the product is marketed.

2.3 Other hazards

EYES:

Contact with eyes may cause severe irritation and possible eye burns.

SKIN:

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May cause severe irritation and possible burns.

INGESTION:

May cause gastrointestinal irritation with nausea, vomiting, and diarrhea.

INHALATION:

May cause irritation and burns to the respiratory tract. CHROMIUM:

May cause histological fibrosis of the lungs. There are some references to chromium causing lung and/or nasal cancer. In addition, chromium metal has caused tumors in laboratory animals via implant and intravenous routes. Chromium is listed as a Confirmed Human Carcinogen by the ACGIH (American Conference of Governmental Industrial Hygienists). MANGANESE:

Dust inhalation may cause tightness and pain in chest, coughing,

and difficulty in breathing. Inhalation of dust may cause headache, nausea, vomiting, shortness of breath, or blurred vision. Dust may irritate skin or eyes. Ingestion may cause central nervous system depression. Prolonged inhalation of Manganese in the form of its inorganic compounds may cause Manganism. Target organs: Respiratory system, central nervous system, blood, kidneys. Medical conditions generally aggravated by exposure: Chronic respiratory disease, liver or kidney disorders, psychiatric disorders, alcoholism, and nerve system RUTHENIUM:

The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed. PBT ASSESMENT: No data available.

vPvB ASSESMENT:

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

This product is not a substance - This is not applicable.

3.2 Mixture:

METAL	%	SYMBOL	CAS NO	EC/EG NO	ACGIH 8 HR TLV	OSHA 8 HR PEL
PLATINUM	20	Pt	7440-06-4	231-116-1	No data	No data
RUTHENIUM	5	Ru	7440-18-8	231-127-1	No data	No data
COBALT	44	Co	7440-48-4	231-158-0	0,05mg/m3	No data
CHROMIUM	30	Cr	7440-47-3	231-157-5	0.5mg/m3	0,5mg/m3 CRVI compounds: Ceiling=0,1mg/m3
MANGANESE	<1	Mn	7439-96-5	231-105-1	5mg/m3	5mg/m3
SILICON	<1	Si	7440-21-3	231-130-8	10mg/m3	10mg/m3 (total dust), 5mg/m3 (respiratory dust)

NOTE: % values are in weight percent and reflect nominal composition.

SECTION 4: First Aid Measures

4.1 Description of necessary first aid measures EYE CONTACT:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. SKIN CONTACT:

Scrub skin thoroughly with soap and water. If victim is conscious and alert, give 2-4 cupfuls of milk or water.

INGESTION:

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Induce vomiting. Never give anything by mouth to an unconscious person. Get medical aid. INHALATION:

Remove affected person to fresh air and assist with additional oxygen if necessary. Get first aid if other symptoms appear.

4.2 Most important symptoms/effects, both acute and delayed

No data available.

4.3 Indication of immediate medical attention and special treatment needed, if necessary No data available.



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SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Metal fire powders, sand.

5.2 Special Hazards arising from the Substance or Mixture:

Heating beyond the melting range may generate fumes which are not flammable.

5.3 Advice for fire-fighters

Wear protective clothing and use a self-contained breathing apparatus.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Use proper personal protective equipment as described in section 8. For emergency responders: Use proper personal protective equipment as described in section 8.

6.2 Environmental precautions

Collect contaminated materials in separate containers. Discharge according to local regulations.

6.3. Methods and material for containment and cleaning up

Avoid creating dust and pick-up using mechanical means.

6.4. Reference to other sections

No data available.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling: Ensure the workspace has proper ventilation. Do not consume substances during work. General protective and hygiene measures. Wash hands before and after breaks. Remove contaminated clothing immediately. Do not ingest, or allow to come into contact with the eyes.

7.2 Conditions for safe storage, including any incompatibilities

Keep container closed in a ventilated area.

7.3 Specific end use(s) No data available.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

Occupational exposure limit values

8.2 Exposure controls

RESPIRATORY:

Provide general ventilation and local exhaust to keep levels below the TLV stated in SECTION 3. Wear a NIOSH approved respirator for dust exceeding the TLVs. Latex gloves are recommended while grinding, heat resistant gloves should be worn while casting and handling hot metals or molds. EYE PROTECTION:

Wear eye protection suitable to each individual operation. OTHER:

Wear apron, lab coat or other protective clothing.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	White metallic	
Odor:	Not applicable	
pH:	Not applicable	
Melting Range:	1370-1420°C	
Flash Point:	Not applicable	
Flammability:	Not applicable	
Autoflammability:	Not applicable	
Explosive Properties:	Not applicable	
Oxidizing Properties:	Not applicable	
Vapor Pressure:	3.0-3.5	
Solubility (Water/Fat):	Not applicable	

9.2 Other information

No data available.

SECTION 10: Stability and Reactivity

10.1 Reactivity

At ordinary and high (below the melting range) temperatures, the material oxidizes but is stable. At very high temperatures the alloy produces fumes.

10.2 Chemical Stability

Product is stable under normal storage and handling conditions. See Section 7.

10.3 Possibility of hazardous reactions

Hydrogen gas can possibly form if the product comes into contact with acid.

10.4 Conditions to Avoid

 N/A if the product is handled according to the Instructions for Use.

10.5 Incompatible Materials Acid.

10.6 Hazardous decomposition products

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

SENSITISATION

Allergic reactions were reported among humans. The product contains small quantities of sensitising substances (methyl methacrylate). Intensive skin contact, especially with the dissolved product, can trigger an allergic reaction in persons previously sensitised.

FURTHER INFORMATION

The biocompatibility tests carried out on the teeth, in accordance with EN ISO 10993, regarding cytotoxicity, toxicity test, stimulate or intradermal reaction, acute systemic toxicity and delayed type, did not result in any negative effects, under the test conditions, on the cell materials used. The fines which appear during sharpening can lead to mechanical irritations of the skin, eyes, and mucous membranes. Skin and eye contact with the product should be avoided. The inhalation of product dusts should be avoided.

SECTION 12: Ecological Information

- 12.1 Toxocity
- No data available.
- 12.2 Persistence and degradability
 - No data available.
- 12.3 Bioaccumulative potential

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No data available.

- **12.4** Mobility in soil No data available.
- **12.5 Results of PBT and vPvB assessment** No data available.

12.6 Other Adverse Effects

No data available.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

PRODUCT: Always recover all waste material and send to Department A at The Argen Corporation for refining. PACKAGING:

Empty container completely and dispose according to local regulations.

SECTION 14: Transport Information

14.1 Transport ADR/RID/AND

This product is not subject to ADR/RID/AND regulations

- **14.2.** Transport IMDG This product is not subject to IMDG regulations.
- 14.3. Transport ICAO-TI / IATA This product is not subject to ICAO-Ti / IATA regulations.
- **14.4.** Other information No data available.
- 14.5. Environmental hazards
 No data is available other than the information provided in Sections 2 and 3.
 This product is not subject to ICAO-Ti / IATA regulations.
- **14.6.** Special precautions for user None.
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code None.

SECTION 15: Regulatory Information

- 15.1 Safety, Health and Environmental Regulations/ Legislation Specific for the Substance or Mixture Germany: Wasserge fährdungsklasse WGK (VwVwS): WGK-1 (self-assessed)
- 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16. Other information

16.1 Training advice

In addition to health, safety and environmental training programs for their workers, companies must ensure that workers read, understand and apply the requirements of this SDS

16.2 Disclaimer

The information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof. However, THE ARGEN CORPORATION makes no representations as to the completeness of accuracy thereof and information is supplied upon the condition that the persons receiving the above material will make there own determination as to its suitability for their purposes prior to use. In no event will "THE ARGEN CORPORATION" be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. No representations or warranties, either expressed

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