

**MATERION****1. Chemical and company identification**

Name of chemical (Product name)	Platinum Targets
Company name	Materion Advanced Materials Germany GmbH
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Emergency telephone number	49.60.23.91.82.0
Reference number	G10

2. Hazards identification**GHS classification**

The product is not classified according to GHS.

GHS label elements

Symbols	None.
Signal words	None.
Hazard statement	The material as sold in solid form is generally not considered hazardous. However, if the process involves grinding, melting, cutting or any other process that causes a release of dust or fumes, hazardous levels of airborne particulate could be generated.

Precautionary statement

Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification None known.

Supplemental information For further information, please contact the Product Stewardship Department at +1.216.383.4019.

Main symptoms and emergency overview

Main symptoms	None known.
Emergency overview	The material as sold in solid form is generally not considered hazardous. However, if the process involves grinding, melting, cutting or any other process that causes a release of dust or fumes, hazardous levels of airborne particulate could be generated.

3. Composition/information on ingredients

Substance or mixture Substance

Components	CAS Number	Gazette notification		
		ENCS no.	ISHL no.	Concentration (%)
Platinum Targets	7440-06-4			100

Chemical formula Pt (7440-06-4)

4. First aid measures

If inhaled	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
If on skin	Wash off with soap and water. Get medical attention if irritation develops and persists.
If in eyes	Rinse with water. Get medical attention if irritation develops and persists.
If swallowed	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Under normal conditions of intended use, this material does not pose a risk to health.
Protection of first-aid responders	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Extinguishing media	Water spray, foam, dry powder or carbon dioxide.
Extinguishing media to avoid	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards	Not a fire hazard.
Special fire fighting procedures	Use water spray to cool unopened containers.
Protection of fire-fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
General fire hazards	No unusual fire or explosion hazards noted.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency measures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
Methods or materials for containment and cleaning up	Stop the flow of material, if this is without risk.
Prevention of secondary hazards	Not applicable.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation)	Provide adequate ventilation.
Safe handling advice	Observe good industrial hygiene practices.
Contact avoidance measures	Aluminum. Phosphorus.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking.

Storage

Safe storage conditions	Store away from incompatible materials (see Section 10 of the SDS).
Safe packaging materials	No special precautions are necessary beyond normal good hygiene practices. See Section 8 of the SDS for additional personal protection advice when handling this product.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Material	Type	Value
Platinum Targets (CAS 7440-06-4)	TWA	1 mg/m3

Engineering measures	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate. Provide eyewash station. Eye wash fountain and emergency showers are recommended.
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Personal protective equipment

Respiratory protection	Wear positive pressure self-contained breathing apparatus (SCBA).
Hand protection	Wear gloves to prevent metal cuts and skin abrasions during handling.
Eye protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear appropriate chemical resistant clothing.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Solid.
Color	Silver-white.

Odor None.

Odor threshold Not applicable.

pH	Not applicable.
Melting point/Freezing point	3215.12 °F (1768.4 °C) / Not applicable.
Boiling point, initial boiling point, and boiling range	Not applicable.
Flash point	Not applicable.
Combustion characteristics (solid, gas)	None known.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not applicable.
Flammability limit - lower (%) temperature	Not applicable.
Flammability limit - upper (%)	Not applicable.
Flammability limit - upper (%) temperature	Not applicable.
Explosive limit - lower (%)	Not applicable.
Explosive limit - lower (%) temperature	Not applicable.
Explosive limit - upper (%)	Not applicable.
Explosive limit - upper (%) temperature	Not applicable.

Vapor pressure	Not applicable.
Vapor density	Not applicable.
Specific gravity	Not applicable.

Solubility(ies)

Solubility (water)	Insoluble
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not applicable.
Viscosity (Coefficient of viscosity)	Not available.

Other information

Density	21.45 g/cm ³ estimated
Explosive properties	Not explosive.
Molecular formula	Pt
Molecular weight	195.08 g/mol
Oxidizing properties	Not oxidizing.
Relative density	Not applicable.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Aluminum. Phosphorus.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Acute toxicity	None known.
Skin corrosion/irritation	Not relevant, due to the form of the product.
Serious eye damage/eye irritation	Not likely, due to the form of the product.
Respiratory or skin sensitization	
Respiratory sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous.
Persistence and degradability	
Bioaccumulation	No data available.
Mobility in soil	No data available.
Hazardous to the ozone layer	No data available.
Other hazardous effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Dispose in accordance with all applicable regulations.

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
Local disposal regulations	Contract with a disposal operator licensed by the Law on Disposal and Cleaning. Dispose of contents/container in accordance with local/regional/national/international regulations. When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste.

14. Transport information

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

National regulations Follow regulation in section 15 for domestic transportation.

15. Regulatory information

Industrial Safety and Health Act

Notifiable substances

PLATINUM AND PLATINUM SALTS, WATER-SOLUBLE Table 9 Ordinance No. 437

Labeling substances

PLATINUM (POWDER)
PLATINUM AND PLATINUM SALTS, WATER-SOLUBLE

Poisonous and Deleterious Substances Control Act

Specified poisonous substances

Not regulated.

Poisonous substances

Not regulated.

Deleterious substances

Not regulated.

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

Class I specified chemical substances

Not regulated.

Class II specified chemical substances

Not regulated.

Monitoring chemical substances

Not regulated.

Priority Assessment Chemical Substances (PACs)

Not regulated.

Reporting Exempted Substances

Not regulated.

Law concerning Pollutant Release and Transfer Register**Specified class 1 substances (substance name, ordinance number and content)**

Not regulated.

Class 1 substances (substance name, ordinance number and content)

Not regulated.

Class 2 substances (substance name, ordinance number and content)

Not regulated.

Ship Safety Law, Dangerous Goods Marine Transport and Storage Rule

Not regulated.

Air Law, Enforcement Rule

Not regulated.

Explosives Control Act

Not regulated.

16. Other information**Bibliography**

HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits
Japan Chemical Industry Association (JCIA) GHS Guideline, June 2012
JIS Z 7252:2014 Classification of chemicals based on "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)"
JIS Z 7253:2012 Hazard communication of chemicals based on GHS - Labelling and Safety Data Sheet (SDS)

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