

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

Name of chemical (Product name)	Platinum Product
Company name	Materion Advanced Materials Germany GmbH
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Emergency telephone number	49.60.23.91.82.0
Reference number	G18

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

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		Concentration (%)
		ENCS no.	ISHL no.	
Platinum Product	7440-06-4			100

Chemical formula Pt (7440-06-4)

4. First aid measures

If inhaled Call a physician if symptoms develop or persist.

If on skin Get medical attention if irritation develops and persists.

If in eyes Get medical attention if irritation develops and persists.

If swallowed Get medical advice/attention if you feel unwell.

Most important symptoms/effects, acute and delayed None known.

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 Powder. Dry sand. Use methods for the surrounding fire.

Extinguishing media to avoid None known.

Specific hazards This product is not flammable.

Special fire fighting procedures Use water spray to cool unopened containers.

Protection of fire-fighters Wear suitable protective equipment.

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.

Environmental precautions Collect spillage.

Methods or materials for containment and cleaning up Collect spillage.

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 Strong oxidizing agents. Acids. Chlorine.

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 Product (CAS 7440-06-4)	TWA	1 mg/m ³

Exposure guidelines This material does not have established exposure limits.

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.

Personal protective equipment

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

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 Use personal protective equipment as required.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Solid.

Color	Grey.
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	6917 °F (3825 °C)
Flash point	Not applicable.
Combustion characteristics (solid, gas)	None known.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not applicable.
Flammability limit - upper (%)	Not applicable.
Explosive limit - lower (%)	Not applicable.
Explosive limit - upper (%)	Not applicable.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Evaporation rate	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 applicable.
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	Acids. Chlorine.
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	Not a respiratory sensitizer.
Skin sensitization	Not a skin sensitizer.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.

12. Ecological information

Ecotoxicity	Not expected to be harmful to aquatic organisms.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulation	No data available.
Mobility in soil	None known.
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.
Contaminated packaging	Refer to manufacturer/supplier for information on recovery/recycling.
Local disposal regulations	Dispose of contents/container in accordance with local/regional/national/international regulations.

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**

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
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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