



PRODUCT INFORMATION SHEET

MATERION

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Name of the substance	Platinum Product
Identification number	231-116-1 (EC number)
Registration number	-
Document number	G18
Synonyms	None.
Issue date	04-March-2019
Version number	02
Revision date	13-July-2021
Supersedes date	04-March-2019

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Scientific research and development Other: Manufacture of medical and defense equipment Manufacture of computer, electronic and optical products, electrical equipment
Uses advised against	Professional uses: Public domain (administration, education, entertainment, services, craftsmen) Consumer uses: Private households (= general public = consumers)

1.3. Details of the supplier of the product information sheet

Supplier

Company name	Materion Advanced Materials
Address	6070 Parkland Boulevard Mayfield Heights, OH 44124 United States
Division	
Telephone	1.216.383.4019
e-mail	ehs@materion.com
Contact person	Theodore Knudson

1.4. Emergency telephone number

See Section 16.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards	Pyrophoric solids	Category 1
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Hazard summary The products are classified as articles and, as such, do not present a physical or health hazard in the present form. If the products are processed or handled in ways that generate particles (dust, fume, particles or powder) and/or chemical compounds, a potential health hazard could exist and risk management measures must be taken to minimize risk.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains:	Platinum Product
Hazard pictograms	None.
Signal word	None.
Hazard statements	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 statements

Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Not available.

Supplemental label information

For further information, please contact the Product Stewardship Department at +1.800.862.4118.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients**3.1. Substances****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Platinum Product	100	7440-06-4 231-116-1	-	-	#

Classification: -**SECTION 4: First aid measures****General information**

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures**Inhalation**

Call a physician if symptoms develop or persist.

Skin contact

Get medical attention if irritation develops and persists.

Eye contact

Get medical attention if irritation develops and persists.

Ingestion

Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

None known.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**General fire hazards**

No unusual fire or explosion hazards noted.

5.1. Extinguishing media**Suitable extinguishing media**

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

Unsuitable extinguishing media

None known.

5.2. Special hazards arising from the substance or mixture

This product is not flammable.

5.3. Advice for firefighters**Special protective equipment for firefighters**

Wear suitable protective equipment.

Special firefighting procedures

Use water spray to cool unopened containers.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Keep unnecessary personnel away.

For emergency responders

Keep unnecessary personnel away.

6.2. Environmental precautions

Collect spillage.

6.3. Methods and material for containment and cleaning up

Collect spillage.

6.4. Reference to other sections

Not available.

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling** Avoid prolonged exposure. Observe good industrial hygiene practices.
- 7.2. Conditions for safe storage, including any incompatibilities** Not available.
- 7.3. Specific end use(s)** Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Material	Type	Value	Form
Platinum Product (CAS 7440-06-4)	MAK	1 mg/m ³	Inhalable fraction.

Belgium. Exposure Limit Values

Material	Type	Value
Platinum Product (CAS 7440-06-4)	TWA	1 mg/m ³

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Material	Type	Value
Platinum Product (CAS 7440-06-4)	TWA	1 mg/m ³

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Material	Type	Value
Platinum Product (CAS 7440-06-4)	MAC	1 mg/m ³

Czech Republic. OELs. Government Decree 361

Material	Type	Value
Platinum Product (CAS 7440-06-4)	Ceiling	1 mg/m ³
	TWA	0,5 mg/m ³

Denmark. Exposure Limit Values

Material	Type	Value	Form
Platinum Product (CAS 7440-06-4)	TLV	1 mg/m ³	Dust.

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended

Material	Type	Value
Platinum Product (CAS 7440-06-4)	TWA	1 mg/m ³

Finland. Workplace Exposure Limits

Material	Type	Value
Platinum Product (CAS 7440-06-4)	TWA	1 mg/m ³

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Material	Type	Value
Platinum Product (CAS 7440-06-4)	VME	1 mg/m ³

Regulatory status: Indicative limit (VL)

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Material	Type	Value	Form
Platinum Product (CAS 7440-06-4)	AGW	1 mg/m ³	Inhalable fraction.

Greece. OELs (Decree No. 90/1999, as amended)

Material	Type	Value
Platinum Product (CAS 7440-06-4)	TWA	5 mg/m3

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

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

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Material	Type	Value	Form
Platinum Product (CAS 7440-06-4)	TWA	1 mg/m3	Dust.

Ireland. Occupational Exposure Limits

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

Italy. Occupational Exposure Limits

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

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

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

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

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

Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A

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

Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)

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

Netherlands. OELs (binding)

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

Poland. Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

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

Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)

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

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

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

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Material	Type	Value
Platinum Product (CAS 7440-06-4)	TWA	1 mg/m ³

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Material	Type	Value
Platinum Product (CAS 7440-06-4)	TWA	1 mg/m ³

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Material	Type	Value	Form
Platinum Product (CAS 7440-06-4)	TWA	1 mg/m ³	Inhalable fraction.

Spain. Occupational Exposure Limits

Material	Type	Value
Platinum Product (CAS 7440-06-4)	TWA	1 mg/m ³

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Material	Type	Value	Form
Platinum Product (CAS 7440-06-4)	TWA	1 mg/m ³	Total dust.

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Material	Type	Value	Form
Platinum Product (CAS 7440-06-4)	TWA	1 mg/m ³	Inhalable fraction.

UK. EH40 Workplace Exposure Limits (WELs)

Material	Type	Value
Platinum Product (CAS 7440-06-4)	TWA	5 mg/m ³

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU

Material	Type	Value
Platinum Product (CAS 7440-06-4)	TWA	1 mg/m ³

Biological limit values

No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures

Follow standard monitoring procedures.

Derived no effect levels (DNELs)

Not available.

Predicted no effect concentrations (PNECs)

Not available.

Exposure guidelines

This material does not have established exposure limits.

8.2. Exposure controls**Appropriate engineering controls**

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.

Individual protection measures, such as personal protective equipment**General information**

As a standard hygiene practice, wash hands before eating or smoking.

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection**- Hand protection**

Wear gloves to prevent metal cuts and skin abrasions during handling.

- Other

Use personal protective equipment as required.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Solid.

Form Solid.

Colour Grey.

Odour None.

Odour threshold Not applicable.

pH Not applicable.

Melting point/freezing point 1768,4 °C (3215,12 °F) / Not applicable.

Initial boiling point and boiling range 3825 °C (6917 °F)

Flash point Not applicable.

Evaporation rate Not applicable.

Flammability (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.

Vapour pressure Not applicable.

Vapour density Not applicable.

Relative density Not applicable.

Solubility(ies)

Solubility (water) Insoluble

Partition coefficient (n-octanol/water) Not applicable.

Auto-ignition temperature Not applicable.

Decomposition temperature Not applicable.

Viscosity Not applicable.

Explosive properties Not explosive.

Oxidising properties Not oxidising.

9.2. Other information

Density 21,45 g/cm³ estimated

Molecular formula Pt

Molecular weight 195,08 g/mol

SECTION 10: Stability and reactivity

10.1. Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability Material is stable under normal conditions.

10.3. Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid Contact with incompatible materials.

10.5. Incompatible materials Acids. Chlorine.

10.6. Hazardous decomposition products No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation	Not likely, due to the form of the product.
Skin contact	Not likely, due to the form of the product.
Eye contact	Not likely, due to the form of the product.
Ingestion	Expected to be a low ingestion hazard.

Symptoms None known.

11.1. Information on toxicological effects

Acute toxicity	No data available.
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 sensitisation	Not a respiratory sensitizer.
Skin sensitisation	Not a skin sensitiser.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.

Hungary. 26/2000 Eüm Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

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.
Mixture versus substance information	No information available.
Other information	This product has no known adverse effect on human health.

SECTION 12: Ecological information

12.1. Toxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
12.2. Persistence and degradability	No data is available on the degradability of this product.
12.3. Bioaccumulative potential	No data available.
Partition coefficient n-octanol/water (log Kow)	Not available.
Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
12.6. Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Refer to manufacturer/supplier for information on recovery/recycling.
EU waste code	Not available.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN3200
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14.2. UN proper shipping name PYROPHORIC SOLID, INORGANIC, N.O.S. (Platinum Product)

14.3. Transport hazard class(es)

Class 4.2

Subsidiary risk -

Label(s) 4.2

Hazard No. (ADR) 43

Tunnel restriction code B/E

14.4. Packing group I

14.5. Environmental hazards No.

14.6. Special precautions for user Not available.

RID

14.1. UN number UN3200

14.2. UN proper shipping name PYROPHORIC SOLID, INORGANIC, N.O.S. (Platinum Product)

14.3. Transport hazard class(es)

Class 4.2

Subsidiary risk -

Label(s) 4.2

14.4. Packing group I

14.5. Environmental hazards No.

14.6. Special precautions for user Not available.

ADN

14.1. UN number UN3200

14.2. UN proper shipping name PYROPHORIC SOLID, INORGANIC, N.O.S. (Platinum Product)

14.3. Transport hazard class(es)

Class 4.2

Subsidiary risk -

Label(s) 4.2

14.4. Packing group I

14.5. Environmental hazards No.

14.6. Special precautions for user Not available.

IATA

14.1. UN number UN3200

14.2. UN proper shipping name Pyrophoric solid, inorganic, n.o.s. (Platinum Product)

14.3. Transport hazard class(es)

Class 4.2

Subsidiary risk -

14.4. Packing group Not available.

14.5. Environmental hazards No.

ERG Code 4L

14.6. Special precautions for user Not available.

Other information

Passenger and cargo aircraft Forbidden

Cargo aircraft only Forbidden

IMDG

14.1. UN number UN3200

14.2. UN proper shipping name PYROPHORIC SOLID, INORGANIC, N.O.S. (Platinum Product)

14.3. Transport hazard class(es)

Class 4.2

Subsidiary risk -

14.4. Packing group	I
14.5. Environmental hazards	
Marine pollutant	No.
EmS	F-G, S-M
14.6. Special precautions for user	Not available.

ADN; ADR; IATA; IMDG; RID



SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended
Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended
Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended
Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended
Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA
Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended
Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended
Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.
Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended
Not listed.

National regulations Not available.

15.2. Chemical safety assessment Not available.

SECTION 16: Other information

List of abbreviations Not available.

References Not available.

Information on evaluation method leading to the classification of mixture

Not applicable.

Training information

Follow training instructions when handling this material.

Further information

Transportation Emergency

Call Chemtrec at:

International: 703.741.5970

Spain: 900.868.538

Switzerland: 0800.564.402

Chemtrec's toll free, mobile-enabled number in Germany – 0800 1817059

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