



PRODUCT INFORMATION SHEET

MATERION

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

1.1. Product identifier

Trade name or designation of the mixture Platinum Nickel Targets
Registration number -
Document number G51
Synonyms None.
Issue date 07-June-2019
Version number 03
Revision date 21-September-2021
Supersedes date 22-February-2021

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.

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

Identified uses Manufacture of computer, electronic and optical products, electrical equipment
Scientific research and development
Other: Manufacture of medical and defense 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 safety data 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

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

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

Health hazards		
Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.
Carcinogenicity	Category 2	H351 - Suspected of causing cancer.

Hazard summary

May cause an allergic skin reaction. Suspected of causing cancer. Causes damage to organs through prolonged or repeated exposure.

2.2. Label elements**Label according to Regulation (EC) No. 1272/2008 as amended****Contains:**

NICKEL POWDER; [PARTICLE DIAMETER < 1MM]

Hazard pictograms**Signal word**

Danger

Hazard statements

H317

May cause an allergic skin reaction.

H351

Suspected of causing cancer.

H372

Causes damage to organs (respiratory system) through prolonged or repeated exposure by inhalation.

Precautionary statements**Prevention**

P201

Obtain special instructions before use.

P202

Do not handle until all safety precautions have been read and understood.

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P264

Wash thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P272

Contaminated work clothing should not be allowed out of the workplace.

P273

Avoid release to the environment.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302 + P350

If on skin: Wash with plenty of water.

P308 + P313

If exposed or concerned: Get medical advice/attention.

P362 + P364

Take off contaminated clothing and wash it before reuse.

Storage

P405

Store locked up.

Disposal

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information

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

2.3. Other hazards

Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Platinum	90 - 99	7440-06-4 231-116-1	-	-	#
Classification: -					
NICKEL POWDER; [PARTICLE DIAMETER < 1MM]	1 - 10	7440-02-0 231-111-4	01-2119438727-29-0049	028-002-00-7	
Classification: Skin Sens. 1;H317, STOT SE 3;H335, Carc. 2;H351, STOT RE 2;H373					7,S

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

If you feel unwell, seek medical advice (show the label where possible).

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

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.
Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed May cause an allergic skin reaction.

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.

Unsuitable extinguishing media Water.

5.2. Special hazards arising from the substance or mixture No unusual fire or explosion hazards noted.

5.3. Advice for firefighters

Special protective equipment for firefighters Wear suitable protective equipment.

Special firefighting procedures Move containers from fire area if you can do so without risk.

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. Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the PIS.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the PIS.

6.2. Environmental precautions Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Stop the flow of material, if this is without risk. For waste disposal, see section 13 of the PIS.

6.4. Reference to other sections For personal protection, see section 8 of the PIS. For waste disposal, see section 13 of the PIS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Do not handle until all safety precautions have been read and understood. Wear appropriate personal protective equipment. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities Store locked up. Store away from incompatible materials (see Section 10 of the PIS).

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

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

Components	Type	Value
NICKEL POWDER; [PARTICLE DIAMETER < 1MM] (CAS 7440-02-0)	TWA	0,25 mg/m3
Platinum (CAS 7440-06-4)	TWA	1 mg/m3

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

Components	Type	Value
Platinum (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.	
8.2. Exposure controls		
Appropriate engineering controls	Good general ventilation 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	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.	
Eye/face protection	If contact is likely, safety glasses with side shields are recommended.	
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 inadequate ventilation, use respiratory protection.	
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.	
Hygiene measures	Observe any medical surveillance requirements. Contaminated work clothing should not be allowed out of the workplace.	
Environmental exposure controls	Good general ventilation 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.	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Solid.
Form	Solid.
Colour	Dark grey.
Odour	None.
Odour threshold	Not applicable.
pH	Not applicable.
Melting point/freezing point	1455 °C (2651 °F) estimated / Not applicable.
Initial boiling point and boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	None known.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not applicable.
Explosive limit - lower (%) temperature	Not applicable.
Explosive limit – upper (%)	Not applicable.
Explosive limit - upper (%) temperature	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. 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	20,30 g/cm ³ estimated
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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	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
10.5. Incompatible materials	Strong acids.
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.
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Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	May cause an allergic skin reaction.
Eye contact	Not likely, due to the form of the product.
Ingestion	Expected to be a low ingestion hazard.

Symptoms	May cause respiratory irritation. May cause an allergic skin reaction. Dermatitis. Rash.
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11.1. Information on toxicological effects

Acute toxicity	None known.
Skin corrosion/irritation	May cause skin irritation.
Serious eye damage/eye irritation	Not likely, due to the form of the product.
Respiratory sensitisation	Not a respiratory sensitizer.
Skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

NICKEL POWDER; [PARTICLE DIAMETER < 1MM] (CAS 7440-02-0)	Possibly carcinogenic to humans. 2B
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Reproductive toxicity	Not classified.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not an aspiration hazard.
Mixture versus substance information	No information available.
Other information	Not available.

SECTION 12: Ecological information

12.1. Toxicity Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

Product	Species	Test Results
Platinum Nickel Targets		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fish 0,6 mg/l, 4 days estimated
Components	Species	Test Results

NICKEL POWDER; [PARTICLE DIAMETER < 1MM] (CAS 7440-02-0)

Aquatic			
<i>Acute</i>			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0,06 mg/l, 4 days

12.2. Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

12.3. Bioaccumulative potential No data available.

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

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. 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.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

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

NICKEL POWDER; [PARTICLE DIAMETER < 1MM] (CAS 7440-02-0)

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

NICKEL POWDER; [PARTICLE DIAMETER < 1MM] (CAS 7440-02-0)

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.

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended.

National regulations

According to Directive 92/85/EEC as amended, pregnant women should not work with the product, if there is the least risk of exposure.

This safety data sheet conforms to the following laws, regulations and standards:

Act on the management of packaging and packaging waste of June 13, 2013
Regulation of the Minister of Health of June 11, 2012 on the categories of dangerous substances and dangerous preparations whose packaging should be fitted with child-resistant closures and a tactile warning of danger
REGULATION OF THE MINISTER OF HEALTH of February 2, 2011 on tests and measurements of factors harmful to health in working environments
Regulation of Ministry of Labor and Social Policy of June 6, 2014. On the matter of maximum permissible concentrations and intensities of harmful factors in the work environment (Journal of Laws 2014, item. 817)

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended. Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

Poland. Substances that could yield hazardous waste (Law on waste, DZ.U. poz. 21/2013, Annex 4)

Not listed.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

Ceiling: Short Term Exposure Limit Ceiling value.
STEL: Short-Term Exposure Limit.
TWA: Time Weighted Average Value.

References

Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

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

Disclaimer

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