



# 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** Nickel Vanadium Product  
**Synonyms** None.  
**Document number** 001  
**Issue date** 23-October-2018  
**Version number** 01

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

**Identified uses** Industrial uses: Uses of substances as such or in preparations at industrial sites  
Manufacture of computer, electronic and optical products, electrical equipment  
General manufacturing, e.g. machinery, equipment, vehicles, other transport 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 product information sheet

#### Supplier

**Company name** Materion Advanced Materials Group  
**Address** 42 Mt. Ebo Road South  
Brewster, NY 10509  
United States

#### Division

**Telephone** 1+845.279.0900  
**e-mail** Not available.  
**Contact person** Not available.

**1.4. Emergency telephone number** Chemtrec 1+703.527.3887

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

None, the product is a mixture.

#### 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.                                    |
| Specific target organ toxicity - repeated exposure | Category 1 | H372 - Causes damage to organs through prolonged or repeated exposure. |

**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, Vanadium

#### Hazard pictograms



**Signal word** Danger

#### Hazard statements

H317 May cause an allergic skin reaction.  
H351 Suspected of causing cancer.

H372

Causes damage to organs through prolonged or repeated exposure.

**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/vapors/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 + P352 | IF ON SKIN: Wash with plenty of water.                           |
| P308 + P313 | IF exposed or concerned: Get medical advice/attention.           |
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P362 + P364 | Take off contaminated clothing and wash it before reuse.         |
| P391        | Collect spillage.  |

**Storage**

|      |                  |
|------|------------------|
| P405 | Store locked up. |
|------|------------------|

**Disposal**

|      |   |
|------|---|
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |
|------|---|

**Supplemental label information** None.**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 |
|------------------------|--------------------------------------|------------------------|------------------------|--------------|-------|
| Nickel                 | 85 - 98                              | 7440-02-0<br>231-111-4 | -                      | 028-002-01-4 |       |
| <b>Classification:</b> | Carc. 2;H351, Aquatic Chronic 3;H412 |                        |                        |              | 7,S   |
| Vanadium               | 2 - 15                               | 7440-62-2<br>231-171-1 | -                      | -            |       |
| <b>Classification:</b> | -                                    |                        |                        |              |       |

**SECTION 4: First aid measures****General information** If exposed or concerned: get medical attention/advice. If you feel unwell, seek medical advice (show the label where possible). Wash contaminated clothing before reuse.**4.1. Description of first aid measures**

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Move to fresh air. Call a physician if symptoms develop or persist.  |
| <b>Skin contact</b> | Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. |
| <b>Eye contact</b>  | Rinse with water. Get medical attention if irritation develops and persists.   |
| <b>Ingestion</b>    | 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. Dermatitis. Rash. Prolonged exposure may cause chronic effects.**4.3. Indication of any immediate medical attention and special treatment needed** Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.**SECTION 5: Firefighting measures****General fire hazards** No unusual fire or explosion hazards noted.**5.1. Extinguishing media**

|                                       |                                    |
|---------------------------------------|------------------------------------|
| <b>Suitable extinguishing media</b>   | Dry sand. Foam.                    |
| <b>Unsuitable extinguishing media</b> | Carbon dioxide (CO <sub>2</sub> ). |

**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** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**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. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

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

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

**6.3. Methods and material for containment and cleaning up** Clean up in accordance with all applicable regulations.

**6.4. Reference to other sections** Not available.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

**7.2. Conditions for safe storage, including any incompatibilities** Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

**7.3. Specific end use(s)** Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

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

| Components             | Type | Value   |
|------------------------|------|---------|
| Nickel (CAS 7440-02-0) | TWA  | 1 mg/m3 |

**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 (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** 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 appropriate chemical resistant gloves.

**- Other** Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

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

|  |   |
|--|---|
| <b>Thermal hazards</b>                 | Wear appropriate thermal protective clothing, when necessary.   |
| <b>Hygiene measures</b>                | Observe any medical surveillance requirements. 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. Contaminated work clothing should not be allowed out of the workplace. |
| <b>Environmental exposure controls</b> | 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

|  |   |
|--|---|
| <b>Physical state</b>                          | Solid.  |
| <b>Form</b>                                    | Solid.  |
| <b>Colour</b>                                  | Gray-silver                                   |
| <b>Odour</b>                                   | None.   |
| <b>Odour threshold</b>                         | Not applicable.                               |
| <b>pH</b>                                      | Not applicable.                               |
| <b>Melting point/freezing point</b>            | 1455 °C (2651 °F) estimated / Not applicable. |
| <b>Initial boiling point and boiling range</b> | Not applicable.                               |
| <b>Flash point</b>                             | Not applicable.                               |
| <b>Evaporation rate</b>                        | Not applicable.                               |
| <b>Flammability (solid, gas)</b>               | None known.                                   |

#### Upper/lower flammability or explosive limits

|   |                 |
|---|-----------------|
| <b>Flammability limit - lower (%)</b>             | Not applicable. |
| <b>Flammability limit - lower (%) temperature</b> | Not applicable. |
| <b>Flammability limit - upper (%)</b>             | Not applicable. |
| <b>Flammability limit - upper (%) temperature</b> | Not applicable. |
| <b>Explosive limit - lower (%)</b>                | Not applicable. |
| <b>Explosive limit - lower (%) temperature</b>    | Not applicable. |
| <b>Explosive limit - upper (%)</b>                | Not applicable. |
| <b>Explosive limit - upper (%) temperature</b>    | Not applicable. |

|                         |                 |
|-------------------------|-----------------|
| <b>Vapour pressure</b>  | Not applicable. |
| <b>Vapour density</b>   | Not applicable. |
| <b>Relative density</b> | Not applicable. |

#### Solubility(ies)

|  |                 |
|--|-----------------|
| <b>Solubility (water)</b>                      | Insoluble.      |
| <b>Partition coefficient (n-octanol/water)</b> | Not applicable. |
| <b>Auto-ignition temperature</b>               | Not applicable. |
| <b>Decomposition temperature</b>               | Not applicable. |
| <b>Viscosity</b>                               | Not applicable. |
| <b>Explosive properties</b>                    | Not explosive.  |
| <b>Oxidising properties</b>                    | Not oxidising.  |

### 9.2. Other information

|                         |                                  |
|-------------------------|----------------------------------|
| <b>Density</b>          | 8,54 g/cm <sup>3</sup> estimated |
| <b>Specific gravity</b> | 8,54 estimated                   |

## SECTION 10: Stability and reactivity

|                                 |   |
|---------------------------------|---|
| <b>10.1. Reactivity</b>         | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| <b>10.2. Chemical stability</b> | Material is stable under normal conditions.   |

|   |   |
|---|---|
| <b>10.3. Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use. |
| <b>10.4. Conditions to avoid</b>                | Contact with incompatible materials.                        |
| <b>10.5. Incompatible materials</b>             | Strong acids.   |
| <b>10.6. Hazardous decomposition products</b>   | 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

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | Under normal conditions of intended use, this material is not expected to be an inhalation hazard.                  |
| <b>Skin contact</b> | May cause an allergic skin reaction.  |
| <b>Eye contact</b>  | Not likely, due to the form of the product.   |
| <b>Ingestion</b>    | May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure. |

**Symptoms** May cause an allergic skin reaction. Dermatitis. Rash.

### 11.1. Information on toxicological effects

|   |   |
|---|---|
| <b>Acute toxicity</b>   | Not known.  |
| <b>Skin corrosion/irritation</b>                              | May cause skin irritation.                                      |
| <b>Serious eye damage/eye irritation</b>                      | Not likely, due to the form of the product.                     |
| <b>Respiratory sensitisation</b>                              | Not a respiratory sensitizer.                                   |
| <b>Skin sensitisation</b>                                     | May cause an allergic skin reaction.                            |
| <b>Germ cell mutagenicity</b>                                 | Not classified.   |
| <b>Carcinogenicity</b>  | Suspected of causing cancer.                                    |
| <b>IARC Monographs. Overall Evaluation of Carcinogenicity</b> |   |
| Nickel (CAS 7440-02-0)  | 2B Possibly carcinogenic to humans.                             |
| <b>Reproductive toxicity</b>                                  | Not classified.   |
| <b>Specific target organ toxicity - single exposure</b>       | Not classified.   |
| <b>Specific target organ toxicity - repeated exposure</b>     | Causes damage to organs through prolonged or repeated exposure. |
| <b>Aspiration hazard</b>                                      | Not an aspiration hazard.                                       |
| <b>Mixture versus substance information</b>                   | No information available.                                       |
| <b>Other information</b>                                      | Not available.  |

## SECTION 12: Ecological information

|  |   |
|--|---|
| <b>12.1. Toxicity</b>                                  | Not relevant, due to the form of the product.   |
| <b>12.2. Persistence and degradability</b>             |   |
| <b>12.3. Bioaccumulative potential</b>                 | No data available.  |
| <b>Partition coefficient n-octanol/water (log Kow)</b> | Not available.  |
| <b>Bioconcentration factor (BCF)</b>                   | Not available.  |
| <b>12.4. Mobility in soil</b>                          | No data available.  |
| <b>12.5. Results of PBT and vPvB assessment</b>        | Not a PBT or vPvB substance or mixture.   |
| <b>12.6. Other adverse effects</b>                     | 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).

|                                     |  |
|-------------------------------------|--|
| <b>Contaminated packaging</b>       | 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. |
| <b>EU waste code</b>                | The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.   |
| <b>Disposal methods/information</b> | 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.                   |
| <b>Special precautions</b>          | 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 (EC) No. 850/2004 On persistent organic pollutants, Annex I 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 (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 (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.

#### National regulations

Follow national regulation for work with chemical agents. 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.

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

**List of abbreviations** Not available.

**Information on evaluation method leading to the classification of mixture**

Not available.

**Disclaimer**

This document has been prepared using data from sources considered to be technically reliable and the information is believed to be correct. Materion makes no warranties, expressed or implied, as to the accuracy of the information contained herein. Materion cannot anticipate all conditions under which this information and its products may be used and the actual conditions of use are beyond its control. The user is responsible to evaluate all available information when using this product for any particular use and to comply with all Federal, State, Provincial and Local laws, statutes and regulations.

To avoid any misunderstandings or incorrect assumptions by the receiver of the safety information, it should be made clear that the supplied information is not in the form of a Safety Data Sheet (SDS), but is actually a voluntary Product Information Sheet closely following the guidelines of the Safety Data Sheet – COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 (REACH/SDS).