

# SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Version no. : 2.0

Prepared on : 01.04.2026

Revised on : -

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

### 1.1 Product identifiers

**Product name** Nickel Aluminium Alloy  
**Product Number** PSR40164  
**Brand** PureSynth research chemicals  
**CAS No.** 12635-27-7

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

**Identified uses** : Laboratory chemicals

### 1.3 Details of the supplier of the safety data sheet

**Company** PureSynth Research Chemicals GmbH  
64683 Einhausen Marie-Curie-Straße. 3, Germany

### 1.4 Emergency telephone number

**Worldwide Helpline No.:** 1800-8908-260

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008**

Flammable solids, (Category 1), H228

Substances and mixtures, which in contact with water, emit flammable gases, (Category 2), H261

Skin sensitisation, (Category 1), H317

Carcinogenicity, (Category 2), H351

### 2.2 Label elements

**Labelling according Regulation (EC) No 1272/2008**

**Pictogram**



**Signal word** Danger

**Hazard statement(s)**

H228 Flammable solid.

H261 In contact with water releases flammable gases.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

**Precautionary statement(s)**

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P231 + P232 Handle and store contents under inert gas. Protect from moisture.

|                                     |                                                                               |
|-------------------------------------|-------------------------------------------------------------------------------|
| P280                                | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P302 + P352                         | IF ON SKIN: Wash with plenty of water.                                        |
| P308 + P313                         | IF exposed or concerned: Get medical advice/ attention.                       |
| Supplemental Hazard Statements (EU) | none                                                                          |

### 2.3 Other hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher..

## SECTION 3: Composition / information on ingredients

### 3.1 Substances

| Common names & Synonyms | Mol. formula                                                               | CAS number    |
|-------------------------|----------------------------------------------------------------------------|---------------|
| Nickel-aluminum alloy   | -                                                                          | 12635-27-7    |
| Component               | Classification                                                             | Concentration |
| nitric acid             | Flam. Sol. 1; Water-react 2; Skin Sens. 1; Carc. 2; H228, H261, H317, H351 | <= 100 %      |

## SECTION 4: First aid measures

### Description of first aid measures

|                                                                                   |                                                                                                                              |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>General advice</b>                                                             | Show this safety data sheet to the doctor in attendance.                                                                     |
| <b>If inhaled</b>                                                                 | After inhalation: fresh air. Call in physician.                                                                              |
| <b>In case of skin contact</b>                                                    | In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician. |
| <b>In case of eye contact</b>                                                     | After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.                           |
| <b>If swallowed</b>                                                               | After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.                            |
| <b>Most important symptoms and effects, both acute and delayed</b>                | The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11          |
| <b>Indication of any immediate medical attention and special treatment needed</b> | No data available                                                                                                            |

## SECTION 5: Firefighting measures

|                                                              |                                                                                                         |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Extinguishing media</b>                                   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| <b>Suitable extinguishing media</b>                          |                                                                                                         |
| <b>Special hazards arising from the substance or mixture</b> | Nickel/nickel oxides<br>Aluminum oxide<br>Combustible                                                   |

|                                 |                                                                                                                                                                 |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                 | May not get in touch with: Water                                                                                                                                |
|                                 | Development of hazardous combustion gases or vapours possible in the event of fire.                                                                             |
| <b>Advice for fire-fighters</b> | Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.   |
| <b>Further information</b>      | Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system. |

## SECTION 6: Accidental release measures

|                                                                            |                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8. |
| <b>Environmental precautions</b>                                           | Do not let product enter drains. Risk of explosion.                                                                                                                                                                                                                                 |
| <b>Methods and materials for containment and cleaning up</b>               | Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.                                                                              |
| <b>Reference to other sections</b>                                         | For disposal see section 13.                                                                                                                                                                                                                                                        |

## SECTION 7: Handling and storage

|                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Precautions for safe handling</b>                                | Work under hood. Do not inhale substance/mixture. Keep workplace dry. Do not allow product to come into contact with water. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2. |
| <b>Conditions for safe storage, including any incompatibilities</b> | Tightly closed. Keep away from heat and sources of ignition. Never allow product to get in contact with water during storage.<br><br>Storage class (TRGS 510): 4.3: Hazardous materials, which set free flammable gases upon contact with water                                                                                                                                                                    |
| <b>Specific end use(s)</b>                                          | Apart from the uses mentioned in section 1.2 no other specific uses are stipulated                                                                                                                                                                                                                                                                                                                                 |

## SECTION 8: Exposure controls / Personal protection

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Control parameters</b>               | Ingredients with workplace control parameters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Exposure controls</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Appropriate engineering controls</b> | No data available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Personal protective equipment:</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Eye / face protection</b>            | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).<br>Safety glasses                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Skin protection</b>                  | This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: <a href="http://www.kcl.de">www.kcl.de</a> ).<br>Full contact<br>Material: Nitrile rubber<br>Minimum layer thickness: 0,11 mm<br>Break through time: 480 min<br>Material tested: KCL 741 Dermatril® L |

Splash contact  
Material: Nitrile rubber  
Minimum layer thickness: 0,11 mm  
Break through time: 480 min  
Material tested: KCL 741 Dermatrill<sup>®</sup> L

**Body Protection**

Flame retardant antistatic protective clothing.

**Respiratory protection**

required when dusts are generated.  
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P3  
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Control of environmental exposure**

Do not let product enter drains. Risk of explosion.

## SECTION 9: Physical and chemical properties

|                                                       |                                                                          |
|-------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Appearance</b>                                     | Form: powder<br>Colour: light grey                                       |
| <b>Odour</b>                                          | No data available                                                        |
| <b>pH - Value</b>                                     | No data available                                                        |
| <b>Density</b>                                        | No data available                                                        |
| <b>Boiling Point</b>                                  | No data available                                                        |
| <b>Melting Point</b>                                  | No data available                                                        |
| <b>Solubility in water</b>                            | No data available                                                        |
| <b>Flash point</b>                                    | Not applicable                                                           |
| <b>Vapour pressure</b>                                | No data available                                                        |
| <b>Auto -ignition temperature</b>                     | No data available                                                        |
| <b>Vapour density</b>                                 | No data available                                                        |
| <b>Flammability (solid, gas)</b>                      | The substance or mixture is a flammable solid with the category 1.       |
| <b>Evaporation rate</b>                               | No data available                                                        |
| <b>Partition coefficient: n- octanol / water</b>      | No data available                                                        |
| <b>Viscosity</b>                                      | No data available                                                        |
| <b>Explosive properties</b>                           | No data available                                                        |
| <b>Upper / lower flammability or explosive limits</b> | No data available                                                        |
| <b>Oxidizing properties</b>                           | The substance or mixture is classified as oxidizing with the category 3. |

**Other safety information:** No data available

## SECTION 10: Stability and reactivity

|                                           |                                                                                                                                                                                           |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed. |
| <b>Chemical stability</b>                 | The product is chemically stable under standard ambient conditions (room temperature)                                                                                                     |
| <b>Possibility of hazardous reactions</b> | No data available                                                                                                                                                                         |
| <b>Condition to avoid</b>                 | Air sensitive<br>Moisture.                                                                                                                                                                |
| <b>Incompatible materials</b>             | Strong oxidizing agents                                                                                                                                                                   |
| <b>Hazardous decomposition products</b>   | In the event of fire: see section 5                                                                                                                                                       |

## SECTION 11: Toxicological information

|                                                           |                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Acute toxicity</b>                                     | Oral: No data available<br>Inhalation: No data available<br>Dermal: No data available                                                                                                                                                                                                                                                                                                    |
| <b>Skin corrosion/irritation</b>                          | Remarks: No data available                                                                                                                                                                                                                                                                                                                                                               |
| <b>Serious eye damage/eye irritation</b>                  | Remarks: No data available                                                                                                                                                                                                                                                                                                                                                               |
| <b>Respiratory or skin sensitization</b>                  | No data available                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Germ cell mutagenicity</b>                             | No data available                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Carcinogenicity</b>                                    | No data available                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Reproductive toxicity</b>                              | No data available                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Specific target organ toxicity - single exposure</b>   | No data available                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Specific target organ toxicity - repeated exposure</b> | No data available                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Aspiration hazard</b>                                  | No data available                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Additional Information</b>                             | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.<br>To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |

## SECTION 12: Ecological information

|                                                     |                                                                                                                                                |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Toxicity</b>                                     |                                                                                                                                                |
| Toxicity to fish                                    | No data available                                                                                                                              |
| Toxicity to daphnia and other aquatic invertebrates | No data available                                                                                                                              |
| Toxicity to algae                                   | No data available                                                                                                                              |
| Toxicity to bacteria                                | No data available                                                                                                                              |
| <b>Persistence and degradability</b>                |                                                                                                                                                |
| <b>Biodegradability</b>                             | No data available                                                                                                                              |
| <b>Bioaccumulation</b>                              | No data available                                                                                                                              |
| <b>Mobility in soil</b>                             | No data available                                                                                                                              |
| <b>Results of PBT and vPvB assessment</b>           | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very |

**Other adverse effects**

bioaccumulative (vPvB) at levels of 0.1% or higher.

Biological effects:

Harmful effect due to pH shift.

Forms corrosive mixtures with water even if diluted.

Does not cause biological oxygen deficit.

Hazard for drinking water supplies.

Discharge into the environment must be avoided.

**SECTION 13: Disposal considerations**

**Waste treatment methods Products** No data available

**SECTION 14: Transport information**

|                  | UN no. | UN proper shipping name | Hazard Class(es) | Packaging group | Marine Pollutant |
|------------------|--------|-------------------------|------------------|-----------------|------------------|
| <b>ADR / RID</b> | 3089   | Nickel Aluminium Alloy  | 4.1              | II              | No               |
| <b>IMDG</b>      | 3089   | Nickel Aluminium Alloy  | 4.1              | II              | No               |
| <b>IATA</b>      | 3089   | Nickel Aluminium Alloy  | 4.1              | II              | No               |

**SECTION 15: Regulatory information**

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out

**SECTION 16: Other information**

The information in this SDS is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The user must be determined suitability of this information for his application.

