## 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** TRAFOPERM® N2, -N3, -N4, VACOFER® S1, VACON FM3
- **Detailed descriptions:**
  
  © registered trademark of VACUUMSCHMELZE GmbH & Co. KG

- **Information sheet - no.:** IB32
- **Remarks for information sheet**
  
  Our semi-finished and finished products constitute manufactured articles under the terms of the REACH Regulation (EC) No. 1907/2006. Articles are not subject to any legal obligation concerning production and distribution of material safety data sheets. The detailed information usually shown in a safety data sheet will be provided in the form of an 'Information sheet for articles' for specific alloys.

  However, we expressly point out that these information sheets for articles are voluntarily produced data sheets which are not governed by the requirements of the REACH regulation.

- **Relevant identified uses of the substance or mixture and uses advised against** Not applicable

- **Application of the article:** semi-finished products and parts

- **Details of the supplier of the information sheet**
  
  Manufacturer/Supplier: VACUUMSCHMELZE GmbH & Co.KG
  Grüner Weg 37
  D-63450 Hanau

  datasheet@vacuumschmelze.com

- **Further information obtainable from:** Environmental Protection Department
- **Emergency telephone number:**
  Tel. no.: (**49) 6181/38-0
  Emergency tel. no.: via (**49) 6181/38-0

## 2 Hazards identification

- **Classification (substance or mixture)**
  
  Classification according to Regulation (EC) No 1272/2008 (CLP-Regulation):
  
  Not applicable For articles there is no obligation to classify acc. to CLP -Regulation.

- **Labelling according to Regulation (EC) No 1272/2008**
  
  Labelling according to Regulation (EC) No 1272/2008 (CLP-Regulation):
  Void

- **Additional VAC information:**
  
  In the case of dust-producing processing, we recommend observance of the following warnings:

- **Hazard statements** Void

- **Precautionary statements**
  
  Do not breathe dust/fume/gas/mist/vapours/spray.
  Use personal protective equipment as required.

- **Other hazards**
- **Results of PBT and vPvB assessment**
  
  - PBT: Not applicable.
  - vPvB: Not applicable.

## 3 Composition/information on ingredients

- **Chemical characterization:**
- **Description:** Metal in compact form

(Contd. on page 2)


**Trade name:** TRAFOPERM® N2, -N3, -N4, VACOFER® S1, VACON FM3

### Components (composition):

The classifications given below reflect the classification of each pure substance respectively and are intended for information only.

<table>
<thead>
<tr>
<th>CAS:</th>
<th>Substance</th>
<th>Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7439-89-6</td>
<td>iron</td>
<td></td>
<td>97-100%</td>
</tr>
<tr>
<td>7440-21-3</td>
<td>silicon</td>
<td>F R11</td>
<td>3%</td>
</tr>
<tr>
<td>7439-98-7</td>
<td>molybdenum</td>
<td>substance with a Community workplace exposure limit</td>
<td>3**%</td>
</tr>
</tbody>
</table>

### Remark to the composition:

* The silicon concentration mentioned only applies for the alloys TRAFOPERM N2/N3/N4.
** The molybdenum concentration mentioned only applies for the alloy VACON FM3.

### Additional information:

- 

### First aid measures

#### Description of first aid measures
- General information: No special measures required.

#### After inhalation:
If metal vapours or solid dusts have been inhaled:
Get the affected person out in the fresh air and call a doctor.

#### After skin contact:
Foreign bodies which have penetrated the skin must be removed and the wound cleaned thoroughly.

#### After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

#### After swallowing:
Consult a doctor if the symptoms persist.

#### Information for doctor:
- Most important symptoms and effects, both acute and delayed: No further relevant information available.
- Indication of any immediate medical attention and special treatment needed: No further relevant information available.

### Firefighting measures

#### Extinguishing media
- Non-combustible.
- Extinguishing agents must be adapted to the environment.

#### Special hazards arising from the substance or mixture: No further relevant information available.

#### Advice for firefighters
- Protective equipment: No special measures required.

### Accidental release measures

Accidental release of dusts and vapours which are damaging to health can be ruled out.

#### Personal precautions, protective equipment and emergency procedures: No special measures required.

#### Environmental precautions: No special measures required.

#### Methods and material for containment and cleaning up: No special measures required.

#### Reference to other sections
- See Section 7 for information on safe handling.
7 Handling and storage

• Handling:
  • Precautions for safe handling
    No safety precautions are necessary in the delivered form.
    The appropriate industrial and environmental safety measures
    must be taken for processing steps which cause dust
    (see also section 8):
    Ensure good ventilation/exhaustion at the workplace.
    Take note of emission threshold.
  • Information about fire - and explosion protection: No special measures required.
  • Conditions for safe storage, including any incompatibilities
  • Storage:
    • Requirements to be met by storerooms and receptacles: See details on storage conditions
    • Information about storage in one common storage facility: Not required.
  • Further information about storage conditions:
    To avoid formation of rust:
    Protect from humidity and water.
    Store in a dry place
    Solid material: Apply a coating of oil or use anti-rust paper
    Complex parts: Store in airtight container with desiccant
    Avoid contact with skin (hand perspiration) - wear gloves
  • Storage class: Not applicable
  • Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

• Additional information about design of technical facilities:
  Suction and filtering and good ventilation of the working area must be provided for processes where dust is
  formed.
  Approved industrial vacuum cleaners of at least dust class L must be used (DIN EN 60335-2-69).
  Suitable breathing apparatus must be used during repair and maintenance work on suction systems (see
  personal safety equipment).
• Control parameters
• Ingredients with limit values that require monitoring at the workplace:
  7439-98-7 molybdenum
  AGW (TRGS 900)-GERMANY (W) general dust limit value
• Additional Occupational Exposure Limit Values for possible hazards during processing:
  Compliance with the general dust limit value(s) (lung penetrating and/or inhalable fraction) must be ensured.
• Additional information: The lists valid during the making were used as basis.
• Exposure controls
• Personal protective equipment:
  • General protective and hygienic measures: Wash hands before breaks and at the end of work.
**Respiratory protection:**

In the case of dust formation (limit value exceeded), breathing apparatus must be worn. Time limits for wearing must be observed.

- Breathing mask, apparatus with particle filter P1 or P2, for example:
  - Breathing mask (EN 149) FFP1 or FFP2
  - 4 times the limit value (FFP1)
  - 10 times the limit value (FFP2)

**Protection of hands:**

Not required.

**Material of gloves** Omitted

**Penetration time of glove material** Omitted

**Eye protection:**

In the event of larger quantities of dust:

Wear protective glasses / EN 166, poss. with side protection.

**Limitation and supervision of exposure into the environment**

The legal issue values and limitations are to be paid attention!

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### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - **Form:** Semi-finished products/parts: e.g. strip, wire and parts
    - **Colour:** Metallic
  - **Odour:** Odourless
  - **pH-value:** Not applicable.

- **Change in condition**
  - **Melting point/Melting range (approx.):** 1535°C

- **Self-igniting:** Not applicable

- **Danger of explosion:** Not applicable

- **Vapour pressure:** Not determined.

- **Density (approx.) at 20°C:** 7.7 g/cm³
  - **Relative density** Not determined.

- **Solubility in / Miscibility with water:** Insoluble.

- **Other information** No further relevant information available.

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### 10 Stability and reactivity

- **Reactivity**

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **Possibility of hazardous reactions**
  - Hydrogen is released in contact with acid which can cause explosive gas mixtures.

- **Conditions to avoid** No further relevant information available.

- **Incompatible materials:** No further relevant information available.

(Contd. on page 5)
11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: Irritation of the eyes in the case of massive direct contact will be mainly due to mechanical effects depending on the grain size.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  When used and handled according to specifications, the article not have any harmful effects to our experience and the information provided to us.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
  - Persistence and degradability: No further relevant information available.
  - Behaviour in environmental systems:
    - Bioaccumulative potential: No further relevant information available.
    - Mobility in soil: No further relevant information available.
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
  - Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
  - Recommendation: Observe official regulations.
- Uncleaned packaging: Not applicable

14 Transport information

- Transport/Additional information:
  - Land transport ADR/RID (cross-border):
    - Remarks: Non-hazardous goods from the standpoint of the specified regulations
  - Maritime transport IMDG:
    - Remarks: Non-hazardous goods from the standpoint of the specified regulations
  - Air Transport ICAO-TI and IATA-DGR:
    - Remarks: Non-hazardous goods from the standpoint of the specified regulations

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Other regulations, limitations and prohibitive regulations
  - e.g.: guidelines 67/548/ECC, 1999/45/EC
16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  H228 Flammable solid.
  R11 Highly flammable.

- Department issuing MSDS:
  Department HT-F
  Tel. 06181/38-2045

- Contact:
  Environmental Protection Department
  Tel. 06181/38-2359

- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association

- Sources
  - KÜHN-BIRETT-Merkblätter gefährlicher Arbeitsstoffe
  - Technische Regeln für Gefahrstoffe

* Data compared to the previous version altered.