

Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 13.10.2011

Version number 1

Revision: 13.10.2011

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

· **Product identifier**

· **Trade name:** Niobium(V) oxide ≥ 99.9%

· **Article number:** 4381

· **CAS Number:**
1313-96-8

· **EC number:**
215-213-6

· **Relevant identified uses of the substance or mixture and uses advised against**

· **Application of the substance / the preparation** Laboratory chemical

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Carl Roth GmbH + Co.KG

Schoemperlenstraße 3-5

76185 Karlsruhe

Telefon: +49/(0)721 5606-0

Telefax: +49/(0)721 5606-149

e-mail: info@carlroth.de

· **Further information obtainable from:** Department Health, Safety and Environment

· **Emergency telephone number:** Poison Centre Munich Telefon +49/(0)89 19240

2 Hazards identification

· **Classification of the substance or mixture**

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

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Void

· **Information concerning particular hazards for human and environment:**

No hazardous product as specified in Directive 67/548/EEC.

· **Classification system:**

This product is not hazardous according to EEC directives 67/548/EEC / 1999/45/EC or regulation (EC) No 1272/2008.

· **Label elements**

· **Labelling according to Regulation (EC) No 1272/2008** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **Other hazards** All chemicals are potentially dangerous. They should only be handled by specially trained personnel.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization:** Substances

· **CAS No. Description**

1313-96-8 dinitium pentoxide

· **Identification number(s)**

· **EC number:** 215-213-6

4 First aid measures

· **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Rinse with water

If skin irritation continues, consult a doctor.

· **After eye contact:** Rinse opened eye for 10 minutes under running water. If symptoms persist, consult a doctor.

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- **After swallowing:**
Rinse out mouth and drink a glass of water. Do not induce vomiting.
If symptoms persist consult doctor.
- **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.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Avoid formation of dust.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose of the material collected according to regulations.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Handling corresponding to laboratory safety guidelines.
- **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:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Do not eat, drink, smoke or sniff while working.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.

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Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Respiratory protection:** Required when dusts are generated.

· **Protection of hands:**

Due to missing tests no recommendation to the glove material can be given for the product.



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Solid

Colour: Whitish

· **Odour:** Odourless

· **Odour threshold:** Not determined.

· **pH-value (100 g/l) at 20°C:** 3-4

· **Change in condition**

Melting point/Melting range: 1512°C

Boiling point/Boiling range: Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Product is not flammable.

· **Ignition temperature:**

Decomposition temperature: Not determined.

· **Self-igniting:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapour pressure:** Not applicable.

· **Density at 20°C:** 4.5 g/cm³

· **Relative density** Not determined.

· **Vapour density** Not applicable.

· **Evaporation rate** Not applicable.

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- **Solubility in / Miscibility with water:** Insoluble.
- **Segregation coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not applicable.
 - Kinematic:** Not applicable.
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No information available.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No information available.
- **Hazardous decomposition products:** No information available.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values relevant for classification:**
 - Oral LD50 > 10000 mg/kg (rat)
- **Primary irritant effect:**
 - on the skin:** No irritating effect.
 - on the eye:** No irritating effect.
 - after inhalation:** Slight irritations.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
 - When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
 - The substance is not subject to classification according to the latest version of the EU lists.
- **Further information:** The product should be handled with the care usual when dealing with chemicals.

12 Ecological information

- **Toxicity**
- **Acquatic 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.
- **Ecotoxicological effects:**
 - Remark:** Do not allow to enter waters, waste water, or soil!
- **Results of PBT and vPvB assessment**
 - PBT:** Not applicable.
 - vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.
- **Uncleaned packaging:**
- **Recommendation:** Disposal according to official regulations.

14 Transport information

- **UN-Number**
 - **ADR, ADN, IMDG, IATA** Void
 - **UN proper shipping name**
 - **ADR, ADN, IMDG, IATA** Void
 - **Transport hazard class(es)**
 - **ADR, ADN, IMDG, IATA**
 - **Class** Void
 - **Packing group**
 - **ADR, IMDG, IATA** Void
 - **Environmental hazards:**
 - **Marine pollutant:** No
 - **Special precautions for user** Not applicable.
 - **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
 - **Transport/Additional information:**
-
- **ADR**
 - **Remarks:** Not subject to transport regulations.
 - **UN "Model Regulation":** -

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Waterhazard class:** Not subject to classification.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

- **Department issuing MSDS:** Department: Health, Safety and Environment
- **Contact:** Herr Dr. Hagel
- **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)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)

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LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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· *** Data compared to the previous version altered.**

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