



# SAFETY DATA SHEET

**MATERION**

## 1. Product and company identification

**Product name** Niobium Chloride (NbCl<sub>5</sub>)  
**Manufacturer/Supplier** Materion Advanced Chemicals Inc.  
**Address** 407 N. 13th Street  
1316 W. St. Paul Avenue  
Milwaukee, WI 53233  
United States  
**Telephone** 414.212.0257  
**e-mail** advancedmaterials@materion.com  
**Contact person** Noreen Atkinson  
**Emergency telephone number**

### Recommended use and Limitations on use

**Recommended use** Not available.  
**SDS number** N-MSDS0018

## 2. Hazards identification

### GHS classification

**Physical hazards** Not classified.  
**Health hazards** Not classified.  
**Environmental hazards** Not classified.

### Label elements

**Symbols** None.  
**Signal word** None.  
**Hazard statement** None.

## 3. Composition/information on ingredients

**Substance or mixture** Substance

Chemical property	CAS Number	Concentration (%)
Niobium Chloride	10026-12-7	100

## 4. First aid measures

**Inhalation** Not available.  
**Skin contact** Not available.  
**Eye contact** Not available.  
**Ingestion** Not available.  
**Potential delayed effects** Not available.  
**Personal protection for first-aid responders** Not available.  
**Notes to physician** Not available.

## 5. Fire-fighting measures

**Extinguishing media** Not available.  
**Extinguishing media to avoid** None.  
**HAZCHEM Code Number** None.  
**Specific hazards during fire fighting** None.  
**Special fire fighting procedures** Not available.  
**Protection of fire-fighters** Not available.  
**Hazards from combustion products** None.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Not available.
<b>Environmental precautions</b>	Not available.
<b>Spill cleanup methods</b>	Not available.

## 7. Handling and storage

### Handling

<b>Precautions</b>	Not available.
<b>Safe handling advice</b>	Not available.
<b>Prevention of fire and explosion</b>	Not available.

### Storage

<b>Suitable storage conditions</b>	Not available.
<b>Incompatible materials</b>	Not available.

## 8. Exposure controls/personal protection

### Exposure limits

No exposure limits noted for ingredient(s).

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
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### Engineering controls

#### Personal protective equipment

<b>Respiratory protection</b>	Not available.
<b>Skin protection</b>	Not available.
<b>Eye/face protection</b>	Not available.
<b>Radioactive or thermal hazards</b>	Not available.
<b>Hygiene measures</b>	Not available.

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Solid.
<b>Form</b>	Not available.
<b>Colour</b>	Not available.

**Odour** Not applicable.

**Odour threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Boiling point, initial boiling point, and boiling range** Not available.

**Flash point** Not available.

**Auto-ignition temperature** Not available.

**Flammability (solid, gas)** Not applicable.

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit – upper (%)** Not available.

**Vapour pressure** < 0.0000001 kPa at 25 °C

**Vapour density** Not available.

**Evaporation rate** Not available.

**Relative density** Not available.

**Density** Not available.

<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Other data</b>	
<b>Molecular formula</b>	Cl5Nb

## 10. Stability and reactivity

<b>Stability</b>	None.
<b>Conditions to avoid</b>	None.
<b>Incompatible materials</b>	None.
<b>Hazardous decomposition products</b>	None.
<b>Possibility of hazardous reactions</b>	None.

## 11. Toxicological information

<b>Acute toxicity</b>	Not available.
<b>Information on likely routes of exposure</b>	
<b>Ingestion</b>	Not available.
<b>Inhalation</b>	Not available.
<b>Skin contact</b>	Not available.
<b>Eye contact</b>	Not available.
<b>Routes of exposure</b>	Not available.
<b>Symptoms</b>	Not available.
<b>Skin corrosion/irritation</b>	Not available.
<b>Serious eye damage/eye irritation</b>	Not available.
<b>Skin sensitiser</b>	Not available.
<b>Chronic effects</b>	Not available.
<b>Relevant negative data</b>	Not available.

## 12. Ecological information

<b>Ecotoxicity</b>	Not available.
<b>Persistence and degradability</b>	Not available.
<b>Bioaccumulation</b>	Not available.
<b>Partition coefficient n-octanol/water (log Kow)</b>	Not available.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>Mobility</b>	Not available.
<b>Other hazardous effects</b>	Not available.

## 13. Disposal considerations

<b>Disposal methods/information</b>	Not available.
<b>Special precautions</b>	Not available.

## 14. Transport information

**IATA**  
Not regulated as dangerous goods.

**IMDG**  
Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

## 15. Regulatory information

### Applicable regulations

#### New Zealand Inventory of Chemicals (NZIoC): Registration status

Niobium Chloride (CAS 10026-12-7)

HSNO Approved

## 16. Other information

### References

Not available.

### Issued by

Not available.

### Prepared by

Not available.

### Issue date

04-May-2015