



SAFETY DATA SHEET

Titanium, Ti

Revision: 3
Revision Date: 19th July 2016

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

1.1 Product identifiers

Product name: **Titanium Purifier Tube for MP-2000 Rare Gas Purifier**

REACH No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. : 7440-32-6

EINECS 231-142-3

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

Identified uses: Laboratory chemicals
Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Sircal Instruments (UK) Ltd.
Unit 19
Charlwoods Road
East Grinstead
West Sussex
RH19 2HL
UK

Telephone: +44 (0)1342 335309
Fax: +44 (0)1342 323608

1.4 Emergency telephone number

Emergency Telephone No.: +44 (0)1342 335309

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Pyrophoric solids (Category 1), H250

For the full text of the H-Statements mentioned in this Section, see Section 16.


Classification according to EU Directives 67/548/EEC or 1999/45/EC

F Highly flammable R17

For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram:	
Signal word:	Danger
Hazard statement(s):	H250 Catches fire spontaneously if exposed to air.
Precautionary statement(s)	P222 Do not allow contact with air. P231 Handle under inert gas. P422 Store contents under inert gas.
Supplemental Hazard Statements	None

2.3 Other hazards

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

SECTION 3: Composition/Information on Ingredients

3.1 Substances

Formula:	Ti
Molecular weight:	47.87 g/mol
CAS-No.:	7440-32-6
EC-No.:	231-142-3

No components need to be disclosed according to the applicable regulations.
For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.



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If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Use approved class D extinguishers or smother with dry sand, dry ground limestone, or dry clay.

5.2 Special hazards arising from the substance or mixture

Titanium/Titanium Oxides.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

For disposal see section 13.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Handle and store under inert gas. Air and moisture sensitive. Storage class (TRGS 510): Pyrophoric and self-



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heating hazardous materials.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

If used in a solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.



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Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

9.2 Other safety information

No data available

a) Appearance	Form: Solid
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point /freezing point	Melting point/range: 1,660°C-lit
f) Initial boiling point and boiling range	3,287°C-lit
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability of explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	4.5g/mL at 25°C
n) Water solubility	Insoluble
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	The substance or mixture is pyrophoric with the category 1
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage conditions.



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10.3 Possibility of hazardous reactions

Reacts violently with water.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

Oxygen, Aluminum, Carbon dioxide (CO₂), Halogens, Chlorinated solvents, Strong acids, Strong oxidizing agents.

10.6 Hazardous decomposition products

Other decomposition products - No data available. In the event of fire: see section 5.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

No data available.

Skin corrosion/irritation

No data available.

Serious eye damage/eye irritation

No data available.

Respiratory or skin sensitisation

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available.

Specific target organ toxicity - single exposure

No data available.

Specific target organ toxicity - repeated exposure

No data available.

Aspiration hazard

No data available.

Additional Information

RTECS: XR1700000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.



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SECTION 12: Ecological information

12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bio accumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

No data available.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

14.1 ADR/RID:

UN Number: 3363

Proper Shipping Name: Dangerous Goods in Machinery or Dangerous Goods In Apparatus

Class: 9

Packing Group: -

Environmental hazards: No

Not subject to ADR/RID – see subsection 1.1.3.1.b

14.2 IMDG:

UN Number: 3363

Proper Shipping Name: Dangerous Goods In Machinery or Dangerous Goods In Apparatus

Class: 9

Packing Group: -

Marine Pollutant: No

See Special Provision 301



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14.3 IATA:

UN Number:3363

Proper Shipping Name: Dangerous Goods In Machinery or Dangerous Goods In Apparatus

Class: 9

Packing Group: -

Packing Instruction: 962

Environmental hazards: No

SECTION 15: Regulatory Information

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

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

No data available.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other Information

Full text of H-Statements referred to under sections 2 and 3.

H250 Catches fire spontaneously if exposed to air.

Full text of R-phrases referred to under sections 2 and 3.

R17 Spontaneously flammable in air.

Further information

The above information 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. It does not represent any guarantee of the properties of the product.