

AUSTRALIAN CHEMICAL REAGENTS  
**SAFETY DATA SHEET**

Date Prepared: October 2023  
Version No: 6

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## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

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Product Name: Hafnium Standard 1000 mg/L  
Product Code: 0695  
Other Names:  
Uses: Analytical Reagent

Contacts: Telephone: 61 08 84402000  
Fax: 61 08 84402001

Emergency Phone: **CHEMCALL** 1800 127 406 (Australia) / +64-4-917-9888 (International)

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## 2. HAZARDS INFORMATION

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### GHS Classification

Skin Corrosion/Irritation: Category 2  
Serious Eye Damage/Irritation: Category 2A  
Corrosive to metals: Category 1

### Signal Word(s) Pictogram(s)

WARNING



### Hazard Statement(s)

H290 May be corrosive to metals.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

### Precautionary Statement(s) Preventative

P234 Keep only in original container  
P264 Wash thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

### Response

P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P362 Take off contaminated clothing and wash before reuse.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER

	P390 Absorb spillage to prevent material-damage.
<b>Storage</b>	P406 Store in corrosive resistant/... container with a resistant inner liner.
<b>Disposal</b>	P501 Dispose of contents/container to an approved waste disposal plant.

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

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#### **Ingredients :**

<b>Chemical Entity</b>	<b>CAS No</b>	<b>Proportion</b>
Hafnium oxychloride	[15461-28-6]	0.2%
Hydrochloric acid	[ 7647-01-0]	2%
Water	[7732-18-5]	to 100%

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### 4. FIRST AID MEASURES

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Safety showers and eye wash facilities should be provided.

#### **Swallowed :**

If conscious wash out mouth with water. Seek medical advice. Show this SDS to medical practitioner.

#### **Eye :**

Immediately hold eyelids open and flood with water for at least 15 minutes. Obtain medical aid. Show this SDS to medical practitioner.

#### **Skin :**

Remove contaminated clothing. Immediately wash skin thoroughly with water and mild soap. Seek medical advice if irritation persists. Show this SDS to medical practitioner. Launder clothing before reuse.

#### **Inhaled :**

Remove from contaminated air. Maintain breathing with artificial respiration if necessary. Seek medical assistance. Show this SDS to a doctor.

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### 5. FIRE FIGHTING MEASURES

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#### **Suitable Extinguishing Media:**

Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

#### **Hazards From Combustion Products:**

Solutions will not burn or support combustion. Decomposition products include hydrogen chloride.

#### **Precautions For Fire Fighters and Special Protective Equipment:**

Fire fighters and others who may be exposed to combustion products during fire should wear full protective clothing including positive pressure self-contained breathing apparatus (SCBA). Wear SCBA with full face-piece, operated in positive pressure mode when fighting fires.

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### 6. ACCIDENTAL RELEASE MEASURES

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#### **Emergency procedures:**

Prevent from entering waterways. Restrict access to area. Remove chemicals that can react with the spilled material. Spills are slippery

#### **Methods and materials for containment and clean up:**

Use inert material such as sand or earth to contain spill or leak. Absorb spills with chemical absorber or vermiculite and dispose of in accordance with local regulations.

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### 7. HANDLING AND STORAGE

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#### **Precautions for Safe Handling:**

Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

#### **Conditions for Safe Storage:**

Store sealed in original container in a cool well ventilated situation away from foods and other chemicals. Do not store in direct sunlight. Observe good hygiene and housekeeping practices.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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### National Exposure Standards:

Safe Work Australia – Hydrogen chloride 7.5mg/m<sup>3</sup> TWA & Peak Limitation

**Biological Limit Values:** No data available.

### Engineering Controls:

Not required with normal use. If mists are likely to be generated maintain atmospheric concentrations well below exposure standards with extraction ventilation.

### Personal Protective Equipment (PPE):

The use of nitrile or neoprene gloves complying with AS 2161 and the use of faceshield, chemical goggles or safety glasses with side shield protection complying with AS/NZS 1337 is recommended.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance :</b>	Clear liquid
<b>Odour:</b>	Nil
<b>pH:</b>	1
<b>Boiling Point (°C) :</b>	Not applicable
<b>Freezing/melting Point:</b>	Not applicable
<b>Vapour Pressure (mm of Hg @ 25°C) :</b>	Not applicable
<b>Vapour Density:</b>	Not applicable
<b>Specific Gravity :</b>	1.1
<b>Flash Point (°C) :</b>	Not flammable
<b>Flammability Limits (%) :</b>	Not flammable
<b>Solubility in Water (g/L) :</b>	Soluble

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## 10. STABILITY AND REACTIVITY

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### Chemical stability:

Stable.

### Conditions to avoid:

Acidic solution. Will corrode metals. Will produce toxic gases on contact with cyanides, sulphides etc.

### Incompatible materials:

Strong alkalis, powdered metals.

### Hazardous decomposition products:

Refer to section 5 (Fire Fighting Measures).

### Hazardous reactions:

Hazardous polymerization will not occur.

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## 11. TOXICOLOGICAL INFORMATION

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### Health Effects:

**Swallowed :** May irritate gastric system and mucous tissues. For hydrochloric acid LD50 oral-rabbit 900mg/kg

**Eye :** Irritating to eye tissue. 100mg rinse of hydrochloric acid produced mild irritation of rabbit eyes.

**Skin :** Irritating to skin.

**Inhaled :** Irritating to respiratory system. For hydrochloric acid LCLo inhalation-human 1300 ppm for 30 minutes

**Chronic Effects:** No data available.

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## 12. ECOLOGICAL INFORMATION

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**Ecotoxicity:**

No data available.

**Persistence and degradability:**

No data available.

**Mobility:**

No data available.

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## 13. DISPOSAL CONSIDERATIONS

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Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state and local environmental regulations.

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## 14. TRANSPORT INFORMATION

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**UN Number:** 3264

**UN Proper Shipping Name:** CORROSIVE LIQUID ACIDIC INORGANIC N.O.S (Contains hydrochloric acid 2%)

**Class and subsidiary risk(s):** 8

**Packing Group:** III

**Hazchem Code:** 2X

**Special precautions for user :** Nil

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## 15. REGULATORY INFORMATION

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**Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP):**

Schedule 5

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## 16. OTHER INFORMATION

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END of SDS