

Emergency Phone Number (24 hours) CHEMTREC (800-424-9300)  
Outside US: 703-527-3887

**SECTION 1**

**CHEMICAL IDENTIFICATION OF THE SUBSTANCE/PREPARATION**

**NAME:** Multi-element Solution 3: **CLMS-3:** 10 ug/mL each of Antimony, Gold, Hafnium, Iridium, Palladium, Platinum, Rhodium, Ruthenium, Tellurium and Tin, all in a solution of 10% Hydrochloric Acid.

**CHEMICAL FAMILY:** Dilute acid solution

**COMMON NAME OR SYNONYMS:** None

**SPEX CERTIPREP CATALOG NUMBER:** CLMS-3

Manufacturer/Supplier  
SPEX CERTIPREP  
203 Norcross Avenue  
Metuchen, NJ 08840

SPEX CERTIPREP LTD  
2 Dalston Gardens  
Stanmore, Middlesex HA7 1BQ  
England  
Tel: (0) 20 8204 6656

**SECTION 2**

**COMPOSITION/INFORMATION ON INGREDIENTS**

**HAZARDOUS:**

MATERIAL	%	TLV UNITS	CAS #	EINECS
HCl	~10	C 7 mg/m <sup>3</sup> (TWA)	[7647-01-0]	(231-595-7)

**NONHAZARDOUS:**

Water	~90	N/A	[7732-18-5]	
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**SECTION 3**

**HAZARDS IDENTIFICATION**

Corrosive. Harmful by inhalation and ingestion. Irritating to the eyes and skin.

**SECTION 4**

**FIRST AID MEASURES**

*General:* Remove contaminated clothing, wash thoroughly before reuse.

*Eyes:* Flush with water for at least 15 minutes occasionally lifting upper and lower eyelids.

*Skin:* Remove contaminated clothing and flush with water thoroughly. *Inhalation:* Move to fresh air. Consult doctor if symptoms persist. *Ingestion:* Get immediate medical help. If the patient is conscious, give large quantities of water.

**SECTION 5**  
**FIRE FIGHTING MEASURES**

Flash Point: Not applicable.

Extinguishing media: Appropriate to surrounding fire conditions.

Special Hazards and Procedure: It may emit toxic Cl fumes in case of fire.

Protective Equipment: Wear self contained breathing apparatus and full protective suit.

**SECTION 6**

**ACCIDENTAL RELEASE MEASURES**

Ventilate area. Wear protective equipment. Do not allow to enter drainage systems or water ways. Dilute spill with water and neutralize with soda ash, limestone etc. Wipe up and put into a sealed container for proper disposal. Wash spill site with water after material pick up is complete. Wear chemical resistant glasses, gloves and clothing.

**SECTION 7**

**HANDLING & STORAGE**

Ensure good ventilation/exhaustion at work place. Have an immediate availability of an eye wash in case of emergency. Store at room temperature. Keep the container tightly closed.

**SECTION 8**

**EXPOSURE CONTROLS/PERSONAL PROTECTION**

Wear goggles, protective apron and acid resistant gloves. Use under fume hood. In case of brief exposure, use MSHA/NIOSH approved respirator.

**SECTION 9**

**PHYSICAL & CHEMICAL PROPERTIES**

Form:	Liquid
Appearance & odor:	Transparent with acrid odor
Specific Gravity:	Approximately 1.0
pH:	1 to 2
Melting point:	n/a
Boiling Point:	~100C
Solubility in water:	Miscible
Danger of Explosion:	Not explosive
Self-ignitability:	Not self igniting

**SECTION 10**

**STABILITY & REACTIVITY**

Stability: Stable under normal storage and use.

Reactivity: No information available for this solution.

Incompatibility: No information available for this solution.

Hazardous Decomposition Products: Toxic fumes under conditions of fire.

Hazardous Polymerization: Will not occur.

CLMS-3 Cont'd

**SECTION 11**  
**TOXICOLOGICAL INFORMATION**

May produce caustic effect on skin, mucous membranes and eyes. Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

**TOXICITY DATA:**

HCl—RTECS#-MW4025000

ihl-hmn LCLo: 1300 ppm/30M

unk-man LDLo: 81 mg/kg

**SECTION 12**  
**ECOLOGICAL INFORMATION**

Do not allow product to reach ground water, water bodies or sewage system.

**SECTION 13**  
**DISPOSAL CONSIDERATIONS**

Contact local Hazardous or Chemical waste disposal agency for regulations.

**SECTION 14**  
**TRANSPORT INFORMATION**

**Air :**

CLASS 8

UN/ID # 1789

Packing Group: III

Proper Shipping Name: Hydrochloric acid solution

**SECTION 14**  
**TRANSPORT INFORMATION**

**Ground:**

CLASS 8

UN/ID # 1789

Packing Group: III

Proper Shipping Name: Hydrochloric acid solution

**SECTION 15**  
**REGULATORY INFORMATION**

USA:

SARA: Subject to the reporting requirements of Section 313 of SARA Title III and of 40 CFR 372.

Components of this solution are reported in EPA TSCA Inventory List

WHMIS Classification (Canada): CLASS E

EC Guidelines:

C: Corrosive

Risk Phrases:

34 - Causes burns

Safety Phrases:

36/37/39 - Wear suitable protective clothing, gloves, and eye/face protection

26 - in case of contact with eyes, rinse immediately with plenty of water and seek medical attention.

45 - in case of accident or if you feel unwell, seek medical advice immediately.

**SECTION 16**  
**OTHER INFORMATION**

SPEX CERTIPREP ASSUMES NO RESPONSIBILITY AND MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO THE ACCURACY OR COMPLETENESS OF THE DATA CONTAINED HEREIN. INDICATED SAFETY MEASURES MAY NOT REFLECT ALL APPROPRIATE SAFETY MEASURES. SPEX CERTIPREP ASSUMES THAT ONLY QUALIFIED INDIVIDUALS, TRAINED AND FAMILIAR WITH PROCEDURES SUITABLE TO THIS PRODUCT, WILL HANDLE THIS PRODUCT.

**References:** The Sigma/Aldrich Library of Chemical Safety Data, Ed.I, (1985)

Registry of Toxic Effects of Chemical Substances, 1981-82  
Patty's Industrial Hygiene and Toxicology, 3<sup>rd</sup> Revised Edition, Vol. 2A, 1981

Threshold Limit Values and Biological Exposure Indices for 1988-89, ACGIH

Dangerous properties of Industrial Materials by N.Irving Sax and Richard J. Lewis, Sr.(Seventh Edition)

**Date:** April 29, 2006