

# MATERIAL SAFETY DATA SHEET

## METEXCHANGE® SA

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### SECTION A - IDENTITY

Manufacturer's Name: ESA, Inc.  
Address: 22 Alpha Road, Chelmsford, MA 01824-4171  
Telephone Number: (978) 250-7000  
Trade Name and Synonyms: Metexchange® SA, Hi Calibrator  
Chemical Family: Buffered acidic solution  
CAS #: N/A

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### SECTION B - HAZARDOUS INGREDIENTS

Chromium Chloride	CAS # 10060-12-5	1.0%
Hydrochloric Acid	CAS # 7647-01-0	1.4%
Hydrazine	CAS # 302-01-2	0.06%
Calcium Acetate	CAS # 5743-26-0	1.5%
Human Whole Blood		3.3%

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### SECTION C - PHYSICAL DATA

Boiling Point:	Non Determined	Specific Gravity:	1.1
Vapor Pressure (mm Hg):	N/D	Percent Volatile by Volume (%):	0.1
Vapor Density (air=1):	N/D	Evaporation Rate:	N/D
Solubility in Water:	Complete	Reactivity in Water: None	pH = 1.5
Appearance and Odor:	Brown solution		

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### SECTION D - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used):	None detected
Flammable Limits:	None detected
Extinguishing Media:	Suitable for surrounding fire.

#### Special Fire Fighting Procedures:

Use water to cool fire exposed containers.

#### Unusual Fire and Explosion Hazards:

None.

## SECTION E - HEALTH HAZARD DATA

OSHA Permissible Exposure Limit: 5 ppm ceiling as HC1; 0.1 ppm for hydrazine  
ACGIH Threshold Limit Value: 5 ppm ceiling as HC1; 0.1 ppm for hydrazine

### Effects of Overexposure:

Acute Effects: Irritation to skin, eyes and respiratory tract. Pulmonary edema can occur.

Chronic Effects: Chronic irritation of exposed tissues. Hydrazine is suspected as having carcinogenic potential in humans and can be absorbed through the skin.

### Emergency and First Aid Procedures: Treat as an acid burn - contact physician!

Inhalation: Remove to fresh air and ventilate area. Support breathing if necessary. Seek medical attention if irritation persists.

Eyes: Flush eyes with water for 15 minutes, especially under eyelids. If irritation persists, see a physician.

Skin: Wash with plenty of water. Remove saturated clothing. Seek medical attention if irritation persists.

Ingestion: If ingested, see a physician immediately.

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## SECTION F - REACTIVITY DATA

Treat as an acid solution. Contact with organics can give violent reactions. Perchloric acid is incompatible with cellulose, glycol ethers, ketones, alcohols, and when heated, with combustibles.

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## SECTION G - SPILL OR LEAK PROCEDURES

### Steps to be Taken in Case of Spill:

Collect and combine with Metexchange waste.

### Waste Disposal Method:

This material is classified as corrosive with chromium toxicity. It is considered as hazardous waste and should be disposed according to federal and state regulations.

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## SECTION H - SPECIAL PROTECTION INFORMATION

Use in well ventilated area. NIOSH approved respirator protection should be worn for acid mists when concentrations exceed the TLV. Rubber, PVC or impervious material gloves should be worn. Safety glasses with side shields or goggles should be worn. Emergency showers and eyewash stations should be within work area. Avoid contact with product and wash thoroughly after handling.

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## SECTION I - SPECIAL PRECAUTIONS

### Precautions to be Taken in Handling and Storing:

Store in cool location out of direct sunlight.

### Other Precautions:

Corrosive to metals with flammable hydrogen gas generated.

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James Mayol, QA Manager

While the information and recommendations set forth herein are believed to be accurate as of the date hereof, ESA, Inc. makes no warranty with respect thereto and disclaims all liability from reliance thereon.