

MATERIAL SAFETY DATA SHEET

NICKEL SOLUTION

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: Nickel Solution
Chemical Family: Acidic Solution
CAS #: N/A

SECTION B - HAZARDOUS INGREDIENTS

		%
Hydrochloric Acid	CAS # 7647-01-0	5%
Nickelous Chloride, 6 Hydrate	CAS # 07791-20-0	<1.0%

SECTION C - PHYSICAL DATA

Boiling Point:	100°C	Specific Gravity:	N/D
Vapor Pressure (mm Hg):	N/D	Percent Volatile by Volume (%):	N/D
Vapor Density (air=1):	N/D	Evaporation Rate:	N/D
Solubility in Water:	Partial	Reactivity in Water:	None pH = 0.2
Appearance and Odor:	Clear, colorless liquid; acidic odor		

SECTION D - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): None
Flammable Limits: N/A
Extinguishing Media: N/A

Special Fire Fighting Procedures:

Water; neutralize with chemically based material (limestone, soda ash)

Unusual Fire and Explosion Hazards:

Corrosive to most metals with flammable hydrogen gas evolved.

SECTION E - HEALTH HAZARD DATA

OSHA Permissible Exposure Limit: 5 ppm ceiling as HCl
ACGIH Threshold Limit Value: 5 ppm ceiling as HCl

Effects of Overexposure:

Acute Effects: Eye, nose and throat irritation, contact may cause skin irritation.
Chronic Effects: None known to ESA, Inc.

Emergency and First Aid Procedures:

Inhalation: If mist or fog causes discomfort, remove to fresh air and ventilate area. If irritation persists, see a physician.
Eyes: Flush eyes with water for 15 minutes. If irritation persists, see a physician.
Skin: Wash with plenty of water. If irritation persists, see a physician.
Ingestion: If ingested, seek medical attention.

SECTION F - REACTIVITY DATA

Treat as an acid solution. Acid reacts with metals, metal oxides, hydroxides, amines and other alkaline materials. Cyanides, sulfides, sulfites and formaldehyde may liberate HCN, H₂S, SO₂, and bischloromethyl ether, respectively.

SECTION G - SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material of Spill:

Clean up with acid neutralizer (soda ash, limestone) or commercial acid spill kit. Wear suitable protective clothing.

Waste Disposal Method:

Dispose of according to applicable federal and state regulations.

SECTION H - SPECIAL PROTECTION INFORMATION

Provide adequate exhaust ventilation to meet TLV requirement. Use NIOSH approved respirator or self-contained breathing apparatus for non-routine emergency conditions. General ventilation is necessary. Rubber, PVC or impervious material gloves should be worn if contact is likely. Safety glasses or goggles should be worn if contact likely.

SECTION I - SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing:

Store in tightly closed containers out of direct sunlight in a cool, well ventilated area, away from oxidizing and alkaline materials.

Other Precautions:

Do not get product in eyes, on skin or clothing.

James Mayol, QA Manager

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