

**Material Safety Data Sheet**

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910 1200. Standard must be consulted for specific requirements.

**U.S. Department of Labor**

Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072

<b>IDENTITY (as Used on Label and List)</b> <b>ETCHING MARKER</b>	Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.
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**Section I**

Manufacturer's name <b>HOSEI CO LTD</b>	Emergency Telephone Number	1-800-535-5053
Address (Number, Street, City, State and ZIP Code)	Telephone Number for Information	0790-26-2422
Nagasuna 810, Nishikawanabe-Aza, Ichikawa-Chou, Kanzaki-Gun, Hyogo 679-2315, Japan.	Date Prepared	October 3, 2014.
	Signature of Preparer (optional)	

**Section II—Hazardous Ingredients/Identity Information**

Hazardous Components (Specific Chemical Identity, Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
<i>Application: For corrosive materials</i>				
Ingredient: Diluted Hydrochloric Acid		CAS #7647-01-0		35%
Diluted Sulfuric Acid		CAS #7664-93-9		7%
Diluted Nitric Acid		CAS #7697-37-2		6%
Distilled water		CAS #7732-18-5		52%
<b>Total</b>				<b>100% ..... 0.10 cc per piece</b>

**Section III—Physical/Chemical Characteristics**

Boiling Point	212° F (100°C)	Specific Gravity (H <sub>2</sub> O = 1)	=
Vapor Pressure (mm Hg)	=	Melting Point	none (liquid)
Vapor Density (AIR = 1)	=	Evaporation Rate (Butyl Acetate = 1)	
Solubility in Water	Unlimited mixable		
Appearance and Odor	Light yellow color. Hydrochloric acid smell.		

**Section IV—Fire and Explosion Hazard Data**

Flash Point (Method Used)	None	Flammable Limits	None	LEL	UEL
Extinguishing Media	No need				
Special Fire Fighting Procedures	No need				
Unusual Fire and Explosion Hazards	Non combustible				

**Section V—Reactivity Data**

Stability	Unstable		Conditions to Avoid
	Stable <b>X</b>		Indirect contact with skin
Incompatibility (Materials to Avoid)	Take cloth or glove		
Hazardous Decomposition or Byproducts	none		
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur <b>X</b>		

**Section VI—Health Hazard Data**

Route(s) of Entry	skin	Inhalation?	Hazardous	Skin?	Hazardous	Ingestion?	Hazardous
Health Hazards (Acute and Chronic)	Toxic corrosive - Non absorb						
Carcinogenicity	NTP?	IARC Monographs?	OSHA Regulated?				
Signs and Symptoms of Exposure	None but to watch unexpected leak						
Medical Conditions	Generally Aggravated by Exposure No symptom						
Emergency and First Aid Procedures	Wash with liberal amount of water or boric acid. In case of skin irritation, eye irritation, see a doctor.						

**Section VII—Precautions for Safe Handling and Use**

Steps to Be Taken in Case Material Is Released or Spilled	Wipe off material with cloth or wash off with water.		
Waste Disposal Method	Normal method done on regular disposal articles.		
Precautions to Be Taken in Handling and Storing	Keep a cover (lid) closed over the marker and place in normal temperature room.		
Other Precautions	Keep out of children's reach.		

**Section VII—Control Measures**

Respiratory Protection (Specify Type)	Keep distance (12 inch around) on writing or marking.		
Ventilation	Local Exhaust	Normal condition	Special None
	Mechanical (General)	No need	Other None
Protective Gloves	No need	Eye Protection	Wearing eye protection is suggested
Other Protective Clothing or Equipment	No need		
Work/Hygienic Practices	Keep the surface of marker dry and wipe off where leaking if any.		