

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

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| IDENTITY (as Used on Label and List) ETCHING MARKER | 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 HOSEI CO LTD | 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% |
| Total | | | | 100% 0.10 cc per piece |

Section III—Physical/Chemical Characteristics

| | | | |
|-------------------------|--|---|---------------|
| Boiling Point | 212° F (100°C) | Specific Gravity (H ₂ 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 | X | 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 | X | |

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

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|---|---|--|--|
| 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. | | |