



1. Product Identification

Trade Name:

SDS Number:

Manufacturer's Name:

Address:

Phone Number:

Emergency Phone Number:

Recommended use of chemicals and restrictions on use:

2. Hazard Identification

GHS Classification:

Physical Hazards:

Explosives

Flammable Gases

Flammable Aerosols

Oxidizing Gases

Gases Under Pressure

Flammable Liquids

Flammable Solids

Self-Reactive Substances and Mixtures

Pyrophoric Liquids

Pyrophoric Solids

Self-Heating Substances and Mixtures

Substances and mixtures, which in contact with water, emit flammable gases

Oxidizing Liquids

Oxidizing Solids

Organic Peroxides

Corrosive Metals

Health Hazards:

Acute Toxicity (Oral)

Acute Toxicity (Dermal)

Acute Toxicity (Inhalation: Gases)

Acute Toxicity (Inhalation: Vapours)

Acute Toxicity (Inhalation: Dusts and Mists)

Skin Corrosion/ Irritation

Eye Damage/ Eye Irritation

Respiratory Sensitization

Skin Sensitization

Germ Cell Mutagenicity

Carcinogenicity

Reproductive Toxicity

Specific Organ Toxicity (Single Exposure)

Specific Organ Toxicity (Repeated Exposure)

Aspiration Hazard

MS-Hardener

A-108J-E1U

Murakami Screen U.S.A., Inc,

745 Monterey Pass Road,

Monterey Park, California, 91745 U.S.A.

(323) 980-0662

Infotrac (800) 535-5053

Material for screen printing.

Not intended for other applications.

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

Not classified

Not applicable

Not classified

Not classified

Not applicable

Classification not possible

Not classified

Classification not possible

Not applicable

Not applicable

Category 1

Classification not possible

Classification not possible

Classification not possible

Classification not possible

Category 5

Category 1

Category 1

Category 1

Classification not possible

Classification not possible

Classification not possible

Classification not possible

Category 2 (Respiratory System)

Category 2 (Respiratory System, Teeth)

Classification not possible



Environmental Hazards:

Hazardous to the aquatic environment (Acute Toxicity)

Category 3

Hazardous to the aquatic environment (Chronic Toxicity)

Classification not possible

Hazardous to the ozone layer

Classification not possible

Pictogram and Symbol:



Corrosion Health Hazard

Signal Word: DANGER

Hazard Statements:

H290 May be corrosive to metals

H302+H332 Harmful if swallowed or if inhaled

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H333 May be harmful if inhaled

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H371 May cause damage to organs (respiratory organ)

H373 May cause damage to organs (respiratory organ, tooth) through prolonged or repeated exposure

H402 Harmful to aquatic life

Precautionary Statements:

P234 Keep only in original container.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P284 [In case of inadequate ventilation] wear respiratory protection.

Response:

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

P303+P361+P353 IF ON SKIN (or hair): Rinse skin with water/shower.

P304+P312 IF INHALED: Call a POISON CENTER/doctor/... if you feel unwell.

P304+P340 IF INHALED: Remove person fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

P305+P351+P338 IF IN EYES: Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.

P310 Immediately call a POISON CENTER/doctor/...

P314 Get medical advice/attention if you feel unwell.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material-damage.

Storage: P405 Store locked up.

Disposal: P501 Dispose of contents / container in accordance with local/regional/national/international regulations.



3. Composition/ Information On Ingredients

Substances or Mixture: Mixture

Ingredients and Concentration Ranges:

Chemical Name		Water	Hydrochloric Acid
wt %		> 97 wt%	1 < 3 wt%
CAS #		7732-18-5	Listed
Global Inventories	TSCA (USA)	Listed	Listed
	ENCS (Japan)	Listed	Listed
	EC No. (EU)	Listed	Listed
	IECSC (China)	Listed	Listed

4. First Aid Measures:

After Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell. Get medical advice/attention if experiencing respiratory symptoms. Cover body with blanket to warm and keep at rest. Perform CPR if not breathing.

After Skin Contact:

Remove/Take off all contaminated clothing immediately. Wash with plenty of soap and water. Get immediate medical advice/attention, if skin irritation or rash occurs.

After Eye Contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse with clean water for at least 15 minutes and then seek medical attention if necessary. When rinsing, open your eyelids with fingers to insure saturation of water. Seek medical attention if the problem persists.

After Swallowing:

Rinse mouth. Do not induce vomiting. Get immediate medical advice/attention. Do not give an unconscious person anything to drink. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

Protection for personnel administering first aid:

Wear appropriate protective equipment if necessary.

5. Fire-Fighting Measures

Extinguishing Media

Suitable Extinguishing Media:

This product does not burn. Use an extinguishing agent suitable for the surrounding fires.

Unsuitable Extinguishing Media:

This product does not burn. Use an extinguishing agent suitable for the surrounding fires.

Specific hazards arising from the product:

When exposed to high temperatures, this product may generate Irritating, corrosive and toxic gases.

**Specific extinguishing measures:**

Cut off the combustion source to the origin of fire and extinguish by using the appropriate fire extinguishing media. Firefighting measures should be done from windward as much as possible. Take appropriate measures to disallow substances that may affect the environment from being dispersed by the drainage. Remove all containers possible to a safe place promptly. If not possible to remove, cool down the area. Work from windward and use respiratory equipment if necessary.

Special protective equipment and precautions:

Cut off the combustion source to the origin of fire and extinguish by using extinguishing media. Combustion/Flue gases generate carbon monoxide and etc. To avoid the fire from spreading, cool surrounding area with water spray. Extinguish from windward and avoid inhaling any harmful gases. Use respiratory equipment if necessary. Extinguish from the windward where the gases do not accumulate and prevent the leakage from spreading. Wear appropriate protective wear (heat-proof) including air respirators. Wear respiratory equipment for harmful gases are produced from combustion or high temperature.

6. Accidental Release Measures**Personal Related Safety Precautions:**

Avoid breathing dust/fume/gas/mist/vapors/spray. Wear protective equipment (boots, gloves, and glasses) to prevent contact with skin. Remove ignition sources in the area and work from windward. Clean up immediately when it spills on the floor or any surface. (The floor surface becomes slippery). Prohibit entry other than related personnel. Ventilate released area. Do not touch and/or walk in the spills. The worker wears an appropriate protective equipment, and avoids eyes, the skin contacts, and inhalations. (refer to Item 8) Provide adequate ventilation if indoors. Cordon off the area and prevent entry of non-related personnel. Work from windward and remove personnel downwind of the area. Wear appropriate protective equipment to prevent contact with skin and inhaling fumes. Remove ignition sources in the area promptly. Prepare fire extinguishing equipment in case of ignition.

Environmental Precautions:

Avoid releasing to the environment. Collect spillage. Do not empty into drain. If it is mixed with wastewater, drain it after the activated sludge process. Be careful not to influence living organisms and water quality in the environment by products released into rivers and any type of body of water. Contact local authorities if it is flowing into rivers or any type of body of water as necessary. Be careful not to influence the environment by products released into rivers or any type of body of water. If the pollution of water pipes or waterways occur, contact relevant organizations. Clean the area and avoid entry into plumbing system. Be careful not drain or release untreated waste water into the environment.

Method and materials for recovery and neutralization:

Contain the flow path with blankets or sand bags and collect into an appropriate container for large spills. Gather and collect into a container for small spills. Prevent the inflow into drains, sewer, basement, or enclosed areas. Clean spills frequently as there is danger of slipping on remnants. Remove all ignition sources. Smoking, open flame or ignition sources are not allowed in the area. Contain with consideration to safety. Collect into open container by absorbing with cloths, rags, sand or etc. and then rinse with plenty of water. Clean the spilled area with a cloth or a rag. Wear appropriate protective equipment throughout the process.



7. Handling and Storage

Relevant regulations shall be subject to where this product will be handled and stored.

Handling:

Work in accordance with the Occupational Safety and Health Act and related laws and regulations. Keep the concentration below the allowed limit. Avoid inhalation and contact. Wear protection if risk of exposure occurs. Use only in a well-ventilated area. Avoid smoking, open flames, heat and sources of ignition. Always cleanse with soap and water after handling. Determine proper procedures for compliance. Seal container after use. Avoid leakage, overflow, dispersal and generating steam without any good reason. Avoid improper handling like tipping over, dropping, strong impact to or dragging the container. Wash hands thoroughly and rinse mouth after handling. Do not eat, drink or smoke when using this product. Do not carry contaminated gloves and protective equipment into rest/break areas. Prohibit entry to work areas other than related personnel. Collect used containers in a defined/fixed area. Use containers that are not damaged, corroded or cracked. Use local exhaust ventilation systems indoors work areas. Wear proper protective equipment to avoid inhalation and contact with eyes and skin.

Storage:

Store in a well-ventilated area. Protect from sunlight (Ultra Violet-light). Keep container tightly closed. Keep cool. Store in a dark light-safe area. Do not freeze.

8. Exposure Controls/Personal Protection

Management density: Not specified.

Exposure limit values:

ACGIH (2009); STEL (C) 2ppm / hydrochloric acid

Engineering Measures:

In the case of indoor use, contain at the source or install a local exhaust system. Provide safety shower and eye/hand wash stations and identify the area clearly. Contain at the source and install a local exhaust system if dust is generated.

Personal Protective Equipment:

Wear following protective equipment as necessary and accordingly. Inspect equipment on a regular basis by using a protective equipment maintenance chart.

Respiratory Protection: Supplied air respirator, air/oxygen breathing apparatus, organic vapor gas mask.

Eye Protection: Wearing protective glasses is preferred.

Hand Protection: Wearing gloves that organic solvents or chemicals do not penetrate is preferred.

Skin Protection: Wearing protective clothing (long sleeve uniform) that organic solvent or the chemical do not infiltrate easily is preferred.

9. Physical and Chemical Properties:

Appearance: Aqueous Solution
Color: Transparent
Odor: Odorless
pH: < 2.0
Melting Point/Freezing Point: Approx 0 °C
Relative Density: Approx 1 mg/cm³
Solubility: Dispersible, Soluble



10. Stability and Reactivity

Reactivity:

Decomposes upon heating and produces hydrogen chloride. Heavily corrodes many metals and concrete. Reacts violently with bases: release of heat. Reacts with strong oxidizers: release hydrogen chloride gas.

Chemical Stability: When exposed to high temperatures, this product may generate Irritating, corrosive and toxic gases.

Conditions to Avoid: Incompatible materials

Incompatible Materials: Strong bases. Metals. Strong oxidizers.

Hazardous Decomposition Products: Hydrogen chloride, Hydrogen

11. Toxicological Information

Acute Toxicity (Oral):

Information on product: No information available. Classification not possible based on the calculation.

Information on ingredients:

Hydrochloric Acid (37%): Category 4. Oral, rat LD50= 700 mg/kg

Acute toxicity (Transdermal):

Information on product: No information available. Classification not possible based on the calculation.

Information on ingredients:

Hydrochloric Acid (37%): Not classified. Dermal, rabbit LD50=5010 mg/kg

Acute toxicity (Inhalation):

Information on product: No information available. Classification not possible based on the calculation.

Information on ingredients:

No information available.

Skin Corrosion/Irritation:

Information on product: No information available. Category 1 based on the pH (<2.0).

Information on ingredients:

Hydrochloric Acid (37%): Category 1

Serious Eye Damage/Irritation:

Information on product: No information available. Category 1 based on the calculation.

Information on ingredients:

Hydrochloric Acid (37%): Category 1

Respiratory Sensitization:

Information on product: No information available. Category 1 based on the calculation.

Information on ingredients:

Hydrochloric Acid (37%): Category 1

Skin Sensitization:

Information on product: No information available. Classification not possible based on the calculation.

Information on ingredients:

Hydrochloric Acid (37%): Category 1



Germ Cell Mutagenicity:

Information on product: No information available. Classification not possible based on the calculation.

Information on ingredients: No information available.

Reproductive toxicity:

Information on product: No information available. Classification not possible based on the calculation.

Information on ingredients: No information available.

STOT-single exposure:

Information on product: No information available. Category 2 (respiratory organ) based on the calculation.

Information on ingredients:
Hydrochloric Acid (37%): Category 2 (respiratory organ)

STOT-repeated exposure:

Information on product: No information available. Category 2 (respiratory organ, tooth) based on the calculation.

Information on ingredients:
Hydrochloric Acid (37%): Category 2 (respiratory system, tooth)

Aspiration hazard:

Information on product: No information available. Classification not possible based on the calculation.

Information on ingredients: No information available.

12. Ecological Information

Ecotoxicity:

Information on product: No information available.

Information on ingredients:
Hydrochloric Acid (37%): LC50 (Gambusia affinis) 282mg/l (96h)

Persistence and degradability:

Information on product: No information available.

Information on ingredients: No information available.

Bioaccumulative potential:

Information on product: No information available.

Information on ingredients: No information available.

Mobility in soil:

Information on product: No information available.

Information on ingredients: No information available.

Other adverse effects:

Information on product: The product is not allowed to run into drain or waterways.

Information on ingredients: No information available.

**13. Disposal Considerations:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transportation Information:

Avoid direct sunlight during transportation. Confirm the container has no damage, corrosion, leakage before transportation. Take measures to prevent the load from tipping, falling and damages. Verify the container has no leaks when transporting and take preventative measure when loading so that the cargo does not tip, fall or get damaged during transit.

UN Classification:

UN Number:	1789
UN Proper Shipping Name:	HYDROCHLORIC ACID
Transport Hazard Class(es):	8
Packing Group:	III
Environmental Hazards (Marine Pollutant):	Z

15. Regulatory Information:

The product must be used, stored, and transported in accordance with local/regional/national/international regulations.

16. Other Information**Handling of described contents:**

The information contained herein is given in good faith and accurate to the best of our knowledge. No warranty is given, expressed, or implied. The product must not be used for any purposes other than those specified under heading 1 without first obtaining written handling instructions. It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations. The information given on this safety data sheet must be regarded as a description of the safety requirements relating to our product and not a guarantee of its properties. Moreover, it is likely to be revised based on a revision of the law and a new finding. This product is developed for general industry. Please use it after confirming safety in your company for special applications.

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