

MERAS ENGINEERING INC 4213 TECHNOLOGY DRIVE SUITE A MODESTO, CA 95356

SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product Identifier: HYDROCHLORIC ACID 35%

Product Code: R35

Product Use: Industrial uses

Chemical Family: Inorganic Acid

MERAS ENGINEERING INC
4213 TECHNOLOGY DRIVE SUITE A
MODESTO, CA 95356
(415)240-4918

24 Hr. Emergency Tel.#: 1-800-424-9300

SECTION 2 - HAZARDS IDENTIFICATION

Classification of the Substance or Mixture:

Skin Corrosion - Category 1
Serious Eye Damage - Category 1
Acute Toxicity - Oral Category 4
Acute Toxicity - Dermal Category 4



Signal Word: DANGER

Hazard Statements:

Causes severe skin burns and eye damage
Harmful if swallowed
Harmful in contact with skin

Precautionary Statements:

Prevention

Wash hands thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection.
Do not eat, drink or smoke when using this product.

Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF ON SKIN: Wash with soap and water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Immediately call a POISON CENTER or doctor/physician
Wash contaminated clothing before reuse.

Storage

Store locked up.

Disposal

Dispose of contents/container in accordance with local regulations.

Hazards not Otherwise Classified:

No other hazards classified.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Synonym	CAS Number	Concentration
HYDROCHLORIC ACID	HCl, MURIATIC ACID	7647-01-0	30-35%

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SAFETY DATA SHEET

SECTION 4 - FIRST-AID MEASURES

Inhalation: Remove source of exposure or move person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

Skin Contact: Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse skin with lukewarm, gently flowing water/shower with a flushing duration of 60 minutes. Immediately call POISON CENTER/doctor. Wash contaminated clothing before re-use.

Eye Contact: Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 60 minutes. Take care not to rinse contaminated water into the unaffected eye or into the face. Immediately call a POISON CENTER/doctor. Continue rinsing until medical aid is available.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. If vomiting occurs naturally, lie on your side, in the recovery position.

Most Important Symptoms and Effects, both Acute and Delayed: Causes severe skin burns and eye damage, burning of the mouth, throat, and esophagus.

Indication of any Immediate Medical Attention and Special Treatment Needed: Treat symptomatically

SECTION 5 - FIRE-FIGHTING MEASURES

Extinguishing Media: Use water spray, powder, foam, carbon dioxide.

Special hazards arising from the substance or mixture: Hot or molten material can react violently with water. Can react with certain metals, such as aluminum, to generate flammable Hydrogen gas.

Flammability classification (OSHA 29 CFR 1910.106) (Hazcom 2012): Non flammable

Hazardous Combustion Products: Forms flammable hydrogen gas on contact with metals.

Special protective equipment and precautions for firefighters: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Methods and materials for containment and cleaning up: SMALL SPILLS (less than 1 gallon): Dike small spills with inert material (sand, earth, etc.). Collect in plastic containers only. Wash area and let dry. LARGE SPILL: Should be diked with sand ahead of spill. Collect in plastic containers only. Ensure adequate decontamination of tools and equipment following clean up.

Special spill response procedures: Collect spills in plastic containers only. Prevent from entering sewers, waterways, or low areas.

SECTION 7 - HANDLING AND STORAGE

Precautions for Safe Handling: Wear at least chemical resistant gloves and eye protection, face shield, and chemical resistant garments when handling, moving or using this product. Do not contaminate water, food, or feed by storage or disposal.

Conditions for Safe Storage: Store in closed, properly labeled, rubber-lined steel, acid-resistant plastic, or glass containers. Store in a cool, dry, well-ventilated place away from heat, cold, metals, strong oxidizing agents, strong alkalis or reactive materials. Protect from freezing. Always use care when opening containers and keep tightly closed when not in use. Do not reuse containers.

Incompatible Materials: Alkalis, oxidizing agents, metals, bases and organic materials.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Identity	CAS Number	Type	Exposure Limit Values	Source
HYDROCHLORIC ACID	7647-01-0	PEL (C)	5 ppm (7 mg/m3)	OSHA
		REL (C)	5 ppm	NIOSH
		TLV (C)	2 ppm	ACGIH

Ventilation and engineering measures: Forced air, local exhaust, or open air is adequate.

Respiratory Protection: Use appropriate NIOSH respirator.

Skin Protection: Wear chemical resistant gloves and chemical resistant garments when handling, wash garments before re-use.

Eye/Face Protection: Wear chemical goggles; also wear a face shield if splashing hazard exists.

Other Protective Equipment: Eye wash facility and emergency shower should be in close proximity.

General Hygiene Conditions: Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industry hygiene and safety practice.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White to pale yellow clear liquid

Odor: Pungent, irritating odor

pH: <2

SAFETY DATA SHEET

Melting/Freezing point: -35°C / -31°F

Initial boiling point and boiling range: 105°C /221 °F

Flammability (solid, gas): Non flammable

Specific gravity: 1.18

Solubility in water: Complete

Viscosity: No data available.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: Reactive with alkalis, attacks most metals, some violently releasing hydroges gas; flames with fluorine.

Chemical Stability: Stable under normal conditions

Possibility of Hazardous Reactions: Reactive with oxidizing agents, reducing agents, metals, bases and alkalis.

Conditions to Avoid: Incompatible materials and high temperatures

Incompatible Materials: Alkalis, oxidizing agents, metals and sodium hypochlorite.

Hazardous Decomposition Products: Corrosive chlorine gas and flammable/explosive hydrogen gas.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry - inhalation: YES

Routes of entry - skin & eye: YES

Routes of entry - ingestion: YES

Potential Health Effects:

Signs and symptoms of short term (acute) exposure:

Inhalation: Severe irritant. Effects from inhalation of mist vary from mild irritation to serious damage of the upper respiratory tract, depending on severity of exposure. Symptoms may include sneezing, sore throat or runny nose. Severe pneumonitis may occur.

Ingestion: Corrosive! Swallowing causes severe burns of mouth, throat, and stomach. Severe scarring of tissue, corrosion, permanent tissue destruction and death may result. Symptoms may include severe pain, nausea, vomiting, diarrhea, shock, hemorrhaging and/or fall in blood pressure. Damage may appear days after exposure.

Skin: Corrosive! Contact with skin causes irritation or severe burns and scarring with greater exposures.

Eye: Corrosive! Causes irritation of eyes, and with greater exposures it can cause burns that may result in permanent impairment of vision, even blindness.

Potential Chronic Health Effects:

Mutagenicity: Not known to have mutagenic effects in humans or animals.

Carcinogenicity: No components are listed as carcinogens by ACGIH, IARC, OSHA, or NTP.

Reproductive effects: No known reproductive effects in humans or animals.

Sensitization to material: Not known as a sensitizer in humans or animals.

Medical conditions aggravated by overexposure: Prolonged exposure may cause dermatitis & dental erosion.

Toxicological data: The calculated ATE values for this mixture are:

ATE oral = 900 mg/kg

ATE dermal = 1449 mg/kg

ATE inhalation = >10,000 ppm

SECTION 12 - ECOLOGICAL INFORMATION

Persistence and degradability: Does not biodegrade. Reacts with various substances (e.g.: limestone or cement) to neutralize itself.

Bioaccumulation potential: This product is not a bioaccumulator.

Mobility in soil: This product is water soluble and will move readily in soil and water.

SECTION 13 - DISPOSAL CONSIDERATIONS

Handling for disposal: Do not contaminate water, food, or feed by storage and/or disposal. When handling refer to protective measures listed in sections 7 and 8. Empty residue from containers, rinse container well.

Method of disposal: Dispose of in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

MERAS ENGINEERING INC 4213 TECHNOLOGY DRIVE SUITE A MODESTO, CA 95356

SAFETY DATA SHEET

RCRA: If product becomes a waste, it does meet the criteria of a hazardous waste as defined by the US EPA, because of: Corrosivity D002

SECTION 14 - TRANSPORTATION INFORMATION

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

Please note the GHS and DOT Standards are NOT identical and therefore can have varying classifications

US 49 CFR/DOT/IATA/IMDG Information:

UN No.: 1789

UN Proper Shipping Name: Hydrochloric Acid

Transportation hazard class(es): 8

Packing Group: II

Environmental hazards: Not a Marine Pollutant

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

TSCA information: All components listed on inventory or are exempt.

US CERCLA reportable quantity (RQ): Hydrochloric acid has a reportable quantity (RQ) of 5000 pounds of pure chemical.

SARA Title III: Acute Health Hazard

US State Right to Know Laws: California Proposition 65: All components listed do not apply to the California Proposition 65 Regulation. Other States: MA,NJ,PA One or more components listed.

International Information: Canadian DSL Inventory: All components listed on inventory. WHMIS Hazard Class: E Corrosive Material

SECTION 16 - OTHER INFORMATION

Legend:

SARA: The Superfund Amendments and Reauthorization Act

RCRA: Resource Conservation and Recovery Act

TSCA: Toxic Substances Control Act

CFR: Code of Federal Regulations

DOT: Department of Transportation

ATE: Acute Toxicity Estimate

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