



***SANI-MARC**

*Les Produits. Et les Hommes.
People and Their Products.*

Material Safety Data Sheet

WHMIS	TDG Road/Rail

Section I. Product Identification and Uses

Trade name MURIATIC ACID	Health Hazard * 3
Code 30-10000	Fire Hazard 0
Supplier SANI-MARC INC. 42 boul. de l'Artisan, Victoriaville, Qc (819) 758-1541	Reactivity 1
Manufacturer SANI-MARC INC. 42 boul. de l'Artisan, Victoriaville, Qc (819) 758-1541	Personal Protection J
Material uses Industrial applications: Powerful acid for cleaning and neutralizing.	Protective Clothing
	Governmental Approbations Not applicable.

Section IA. First Aid Measures

Eye contact	Check for and remove any contact lenses. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used. DO NOT use an eye ointment. Seek medical attention.
Skin contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Hazardous skin contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Slight inhalation	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.
Hazardous inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.
Slight ingestion	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Hazardous ingestion	No additional information.

Section II. Hazardous Ingredients**MURIATIC ACID**

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Name	CAS #	% by Weight	TLV/PEL	LC ₅₀ /LD ₅₀
Hydrochloric acid	7647-01-0	30-60	TWA: 5 (ppm) from ACGIH	ORAL (LD50): Acute: 900 mg/kg [Rabbit]. GAS (LC50): Acute: 1562 ppm 4 hour(s) [Rat]. 757 ppm 4 hour(s) [Mouse].

Section III. Physical Data

Physical state and appearance	Liquid. (Transparent liquid)	Color	Colorless.
pH (Pure)	0.8 [Acid.]	Odor	Acid (Strong.)
pH (1% soln/water)	1.8 (Conc. (% w/w): 1) [Acidic.]		
Odor threshold	The highest known value is 1 ppm (Hydrochloric acid)		
Volatility	Not available.		
Freezing point	-40°C (-40°F)		
Boiling/Condensation point	98°C (208.4°F)		
Specific gravity	1.16 (Water = 1)		
Vapor density	1.27 (Air = 1)		
Vapor pressure	20 mm of Hg (@ 20°C)		
Evaporation rate	Not available.		
Viscosity	Not available.		
Water/oil dist. coeff.	The product is equally soluble in oil and water.		
Ionicity (surface active agent)	Not available.		
Critical temperature	Not available.		
Instability temperature	Not available.		
Conditions of instability	No additional remark.		
Dispersion properties	See solubility in water, methanol, n-octanol.		
Solubility	Easily soluble in cold water, hot water, methanol, n-octanol.		

Section IV. Fire and Explosion Data

The product is:	Non-flammable.
Auto-ignition temperature	Not applicable.
Fire degradation products	Not applicable.
Flash points	Not applicable.
Flammable limits	Not applicable.
Fire extinguishing procedures	Not applicable.
Flammability	Not applicable.
Risks of explosion	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Highly explosive in presence of oxidizing materials, of organic materials.

Section V. Reactivity Data

Stability	The product is stable.
Hazardous decomp. products	Not available.
Degradability	Not available.
Products of degradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The products of degradation are as toxic as the original product.
Corrosivity	No specific information is available in our database regarding the corrosivity of this product in presence of various materials.
Reactivity	Highly reactive with metals, alkalis. Reactive with reducing agents.

Section VI. Toxicological Properties

Routes of entry	Absorbed through skin. Eye contact. Inhalation. Ingestion.
TLV	ACGIH (United States). TWA: 5 ppm Consult local authorities for acceptable exposure limits.
Toxicity for animals	Acute oral toxicity (LD50): 900 mg/kg [Rabbit]. Acute toxicity of the gas (LC50): 757 ppm 4 hour(s) [Mouse].
Chronic effects on humans	Very hazardous in case of skin contact (corrosive, irritant, sensitizer, permeator), of eye contact (irritant), of ingestion, of inhalation (lung irritant, lung sensitizer). CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.
Acute effects on humans	Very hazardous in case of skin contact (corrosive, irritant, sensitizer, permeator), of eye contact (irritant, corrosive), of ingestion, of inhalation (lung irritant, lung sensitizer, lung corrosive). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.




Section VII. Preventive Measures

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Waste information	Not available.
Waste stream	Not available.
Storage	Corrosive materials should be stored in a separate safety storage cabinet or room.
Precautions	Keep locked up. Keep container dry. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents, metals, alkalis.
Small spill and leak	Dilute with water and mop up, or absorb with an inert DRY material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate.
Large spill and leak	Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of sodium carbonate.
Protective clothing	Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product.

Section VIII. Classification

TDG road / rail	TDG Class 8: Corrosive liquid. Shipping name: HYDROCHLORIC ACID, 8, UN 1789 PG II (Ltd. Qty. Index, 1L)	
Maritime transportation	Not available.	
WHMIS	WHMIS CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). WHMIS CLASS E: Corrosive liquid.	
Federal and provincial regulations	No products were found.	

Section IX. Protective Measures

Protective clothing	Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use a MSHA approved respirator or equivalent. Gloves (impervious). Wear appropriate respirator when ventilation is inadequate.	
Engineering controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.	

Section X. Other Information

References	Not available.
No additional remark.	
Validated by Service Santé et Sécurité on 09/06/2003.	Verified by Service Santé et Sécurité. Printed 09/06/2003.

Emergency phone: CANUTEC (613) 996-6666 (Collect calls accepted)

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