SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	MURIATIC ACID – 32%
PRODUCT NO:	TM297
RECOMMENDED USE:	20 Baume Hydrochloric Acid
COMPANY:	TRANS-MATE, INC. 13 Sterling Road N. Billerica, MA 01862 USA 978-667-0100
EMERGENCY TELEPHONE NUMBER:	Trans-Mate – 978-667-0100 CHEMTREC – 800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

Danger
Causes severe skin burns and eye damage. Fatal if swallowed. May cause respiratory irritation. May be corrosive to metals.

Wear protective gloves and eye protection. Wash thoroughly after handling. Do not eat drink or smoke when using this product. Do not breathe mists. Use only outdoors or in a well-ventilated area.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.

If on skin: Take off immediately contaminated clothing and wash it before reuse. Rinse skin with water. Immediately call a doctor.

If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a doctor.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.

Store locked up.

Dispose of contents/container in accordance with local/state/federal regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS #	WEIGHT %
Hydrogen chloride	7647-01-0	26-37
Water	7732-18-5	63-74

*Identity of this ingredient is a trade secret
**Exact percentage of this ingredient is a trade secret

SECTION 4: FIRST AID MEASURES

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.

If on skin: Take off immediately contaminated clothing and wash it before reuse. Rinse skin with water. Immediately call a doctor.

If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a doctor.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water spray, dry chemical, carbon dioxide or "alcohol" foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Combustion may produce noxious and irritating gases which will require fresh air source in fire fighting. Reacts with metals with rapid evolution of hydrogen gas which is flammable and explosive.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should be equipped with self-contained breathing apparatus and turnout gear as a general precaution.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Use personal protective equipment; see Section 8.

Keep product from entering storm sewers and ditches that may lead to waterways.

Stop spill at source; dike and contain large spills and neutralize with soda ash, lime or limestone.

See Section 13 for disposal.

SECTION 7: HANDLING AND STORAGE

Handle according to good manufacturing and warehousing practices. Avoid contact with eyes, skin and clothing. Use protective clothing including chemical goggles, full face shield and NIOSH approved cartridge respirator.

Store indoors between 40F/4C and 100F/38C

Use product only for intended use. Follow label directions.

Wash hands after handling.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT	CAS #	PEL (ppm or *mg.M^3) +=skin, c=ceiling	TLV (ppm or *mg.M^3) +=skin, c=ceiling
Hydrogen Chloride	7647-01-0	7* ceiling	5

EYES: Wear eye goggles or safety glasses. Contact lenses should not be worn.

SKIN: Chemical resistant clothing (i.e. gloves) is recommended.

RESPIRATORY PROTECTION: When exposure through inhalation may occur from use, approved respiratory protection equipment is recommended.

VENTILATION: Use adequate ventilation to keep concentrations below exposure limits.

OTHER PROTECTIVE EQUIPMENT: Emergency eye wash station is recommended.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Slightly yellow liquid
ODOR: Sharp pungent odor
ODOR THRESHOLD: NA
pH: 1
MELTING/FREEZING POINT: Approx. -12 to -63F
BOILING POINT: 230F
BOILING RANGE: NA
FLASH POINT (CC): >212F/100C
EVAPORATION RATE: NA
FLAMMABILITY: Not flammable nor combustible
UPPER/LOWER FLAMMABILITY LIMITS: NA
UPPER/LOWER EXPLOSIVE LIMITS: NA
VAPOR PRESSURE: 50-60 mm
VAPOR DENSITY: NA
RELATIVE DENSITY: 9.5 LB/GAL
SOLUBILITY: Soluble in Water
PARTITION COEFFICIENT: N-OCTANOL/WATER: NA
AUTO-IGNITION TEMPERATURE: NA
DECOMPOSITION TEMPERATURE: NA
VISCOSITY: Water thin

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Extremely reactive. Avoid contact with metals and oxidizing agents.
CHEMICAL STABILITY: Stable
POSSIBILITY OF HAZARDOUS REACTIONS: High. Reacts with metals, metal oxides and hydroxides. Reacts with zeolites, carbonates. Reacts with oxygen to form chlorine. Hydrolyzes carbohydrates, esters and other compounds. Reacts violently with acetic anhydride, aminoethanol, ammonium hydroxide, calcium phosphide, chlorosulfonic acid, ethlene diamine, ethylene imine, olium, perchloric acid, beta propiolactone, propylene oxcide, sodium hydroxide, sulfuric acid, uranium phosphide, vinyl acetate and other chemicals.
INCOMPATIBILE MATERIALS: Avoid oxidizers and metals.
HAZARDOUS DECOMPOSITION PRODUCTS: Explosive hydrogen gas. Toxic fumes, including chlorine.

SECTION 11: TOXICOLOGICAL INFORMATION

This product contains no ingredients at or about 0.1% that are listed by NTP, IARC, or OSHA as carcinogens.
Human LcLo – 1300 ppm/30 minutes
Rat LC50 – 4701ppm/30 minutes
Rabbit LD50 – 900 mg/kg
Mutagenic Effects – Chromosome damage 100 ppm/24 hours (inhalation), 100 ppm (oral)
Cytogenic effects 20 mg parental.

SECTION 12: ECOLOGICAL INFORMATION

Animals exposed to hydrochloric acid will experience tissue damage, burns and possible death. High concentrates are detrimental to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with federal, state and local environmental regulations. As sold, this product is a hazardous waste according to Federal Regulations.

SECTION 14: TRANSPORT INFORMATION

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT	UN1789	HYDROCHLORIC ACID	8	II	-	-

SECTION 15: REGULATORY INFORMATION

RTK Ingredients: Water (7732-18-5), Hydrogen Chloride (7647-01-0)

SECTION 16: OTHER INFORMATION

NFPA 704
HAZARD RATING

4=Severe	H=Health	H=3
3=Serious	F=Fire	F=0
2=Moderate	R=Reactivity	R=0
1=Slight		
0=Minimal		

Prepared: January 2, 2015