Material Safety Data Sheet
CRMC 2

Section 1. Chemical Product and Company Identification

Product Name	CRMC2
Product Number	NTA CRMC2
Manufacturer/ Supplier	NuTech Specialties, Inc. 9811 So. 6150 W. West Jordan, UT 84088
Phone Number	(801) 253-1000 (Mon-Fri/ 8am- 5pm MT)
D.O.T. Emergency Phone:	**1-800-633-8253**
Date of Preparation	October 19, 2012 **Revision Number** 1.0

Section 2. Hazards Identification

Emergency overview **This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.**

DANGER!

Keep out of reach of children.
Keep container closed during storage. Ensure that eyewash stations and safety showers are proximal to the work-station location. S24/25- Avoid contact with skin and eyes.

Potential Acute Health Effects	Corrosive to skin and eyes on contact, 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.
Routes of Entry	Eye Contact, Skin contact, Ingestion, INHALATION.
Eyes	Corrosive! Vapors are irritating and may cause damage to the eyes. Contact may cause severe burns and permanent eye damage.
Skin	Acute exposure can cause burns and be destructive to skin
Inhalation	Inhalation may severely burn respiratory Tract
Ingestion	May cause irritation.
Medical conditions aggravated by exposure:	Prolonged exposure may result in skin burns and ulcerations. Severe over-exposure can produce lung damage, choking, unconsciousness or death.
Potential Chronic Health	Long-term exposure to concentrated vapors may cause erosion of teeth. Long term exposures seldom occur due to the corrosive properties of the acid.
Carcinogenic Effects	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.
Target Organs	
Environmental Effects	Not available

Section 3. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits	LC_{50}/LD_{50}
Hydrochloric Acid	7647-01-0	45%		5/5

The balance of components are proprietary and not considered hazardous

Section 4. First Aid Measures

Eye Contact

Call physician immediately, preferably and ophthalmologist. Eye contact can result in corneal damage or blindness. Immediately flush eyes with running water for at least 15 to 20 minutes, keeping eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. To alleviate pain until physician arrives 2 drops of 0.5% "Pontocaine" hydrochloride solution into eye. No oils or oily ointments should be used unless directed by doctor.

Skin Contact

Remove contaminated clothing and shoes. Wash gently and thoroughly the contaminated skin with running water and non abrasive soap for 15 to 20 minutes. See a physician

Inhalation

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible. If breathing is difficult, give oxygen. Call poison control center or seek medical attention if symptoms persist.

Ingestion

Do not induce vomiting. Drink large quantities of water as soon as possible followed by milk or 2 oz of milk magnesia to drink to soothe the burning effect. Do not give anything by mouth to an unconscious person Call physician immediately. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

General Advice

In case of Accident or if you feel unwell, seek medical advice immediately (show label or MSDS where possible).

Notes to Physician

Not available

Section 5. Fire Fighting Measures

Flammability

Non flammable

Fire Fighting Media and instructions

Not available

Products of Combustion

Not available

Special Remarks on Fire Hazards

Product is non-Flammable, However, it can react with metals to produce hydrogen, a flammable gas

Special Remarks on Explosion Hazards

Product is non-Flammable, However, it can react with metals to produce hydrogen, a flammable gas

Sensitivity to Mechanical Impact

Not available

Sensitivity to Static Discharge

Not available

Protection of Fire Fighters

The amount of HCL vapor released from ruptured containers will be increased by heat. In such case full protective equipment might be needed. Usual fire and explosion hazards: Product is non-flammable; however it can react with metals to produce hydrogen, a flammable gas.

Section 6. Accidental Release Measures

Personal Precautions	Face shield. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Methods for Containment	Corrosive liquid. Avoid to runoff to sewers and waterways. Water protective clothing. Absorb with inert material. Contact your local Emergency planning commission for further instructions. Absorb with an in inert material and put the spilled material in an appropriate waste disposal.
Environmental Precautions	**See Methods for Containment**
Methods for Clean Up	Do not breathe vapor, get in eyes, on skin, or on clothing. Keep personnel upwind of spil an do not enter area unless equipped with full protective equipment and self contained breathing apparatus.

Section 7. Handling and Storage

Precautions	Keep locked up. Keep container dry. DO NOT INGEST. Do not breath the gas, fumes, vapor or spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or label. Avoid contact with skin and eyes. After handling, always wash hands thoroughly with soap and water.
Incompatibility	Strong alkalis, most metal, bleach. Alkalis incompatible with chlorinated solvents. Incompatible with alcohols and wide variety of metals
Storage	Corrosive materials should be stored in a separate safety storage cabinet or room. Not for use or storage in or around the home. Keep out of reach of children. For Institutional and Commercial Use

Keep out of reach of children.
Keep container closed during storage. Ensure that eyewash stations and safety showers are proximal to the work station location. S24/25- Avoid contact with skin and eyes.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	
Personal Protection	Good general ventilation should be sufficient to control airborne levels.
Eyes	Splash goggles or Face Shield.
Body	Additional body garments are highly recommended to be used such as apron and rubber boots.
Respiratory	Wear appropriate respirator when ventilation is inadequate.
Hands	Impervious gloves
Protective Clothing (Pictograms)	

Exposure Limits	Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Red Liquid
Molecular Weight	N/A
Ph	1
Boiling/Condensation Point	123 F-183 F
Melting/Freezing Point	N/A
Critical Temperature	N/A
Instability Temperature	N/A
Specific Gravity	(H20 = 1): N/A
Vapor Pressure	**(**Non-Aerosols)(mm Hg and Temperature): 30mm HG @ 25 DOG C
Vapor Density	(Air = 1) 1.3
Volatility	N/A
VOC	N/A
Evaporation Rate	(H20 = 1): <1
Dispersion Properties	N/A
Solubility	Complete in water
The Product is:	
Auto-ignition Temperature	N/A
Flash Points	N/A
Flammable Limits	Not applicable
Fire Hazards in Presence Of Various Substances	Product is non-Flammable, however, it can react with metals to produce hydrogen, a flammable gas
Explosion Hazards in Presence of Various Substances	Product is non-Flammable, however, it can react with metals to produce hydrogen, a flammable gas
Odor	Acidic
Color	Red

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Incompatibility with	Strong alkali materials and oxidizing agent, cyanide, sulfides, formaldehyde.
Hazardous Decomposition Products	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Skin Contact. Ingestion. Eye Contact.
Toxicity to Animals	Oral Rat DL50 900mg/kg
Acute Effects on Humans	
Eyes	May cause irritation
Skin	Acute exposure can cause burns and be destructive to skin
Inhalation	Inhalation may severely burn respiratory Tract
Ingestion	May cause irritation.
Chronic Effects on Humans	Long-term exposure to concentrated vapors may cause erosion of teeth. Long term exposures seldom occur due to the corrosive properties of the acid.
Special Remarks on Toxicity to Animals	No additional remark
Special Remarks on Chronic Effects on Humans	No additional remark

Section 12. Ecological Information

Ecotoxicity	This material is expected to be toxic to aquatic life
BOD5 and COD	Not available
Products of Biodegradation	When released into the soil, this material is not expected to biodegrade. When released into the soil, this material mat leak into groundwater.
Toxicity of the Products of Biodegradation	Not available
Special Remarks on the Products of Biodegradation	Not available

Section 13. Disposal Considerations

Waste Information	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste Stream	Neutralize with lime and flush with water. Run off to sewer may create a hazard in the case of large spills; notify authorities.

Section 14. Transport Information

DOT (U.S.A.) (Pictograms)

TDG Classification

PIN UN, Proper Shipping Name, PG	Shipping Name: Corrosive liquids N.O.S. UNNA: 1760 PG: II

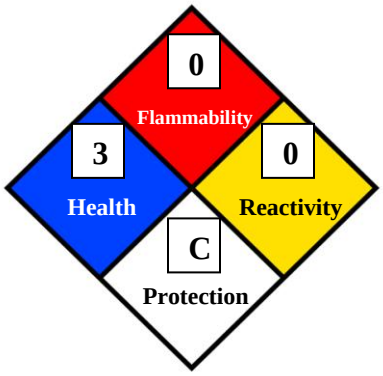
Maritime Transportation	Not a "marine pollutant"
Special Provisions for Transport	Not available

Section 15. Regulatory Information and Pictograms

Regulatory Lists		No products were found
Other Regulations		OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
Other Classifications	**HCS (U.S.A.)**	HCS Class: Corrosive Liquid. HCS Class: Toxic.
	USA Regulatory Lists	This product does NOT contain components that are known to the state of California to Cause Cancer or Reproductive Harm at or above California Prop 65 No Observable Effect Level (NOEL) SARA 302 Extremely Hazardous Substances - Not listed SARA 311 - 1. Immediate (acute) health hazard SARA 313 Toxic Chemical List – Listed
	DSD (EEC)	R22- Harmful if swallowed. R35- Causes severe burns.
	International Regulations Lists	No Products were found.

Hazardous Material Information System (U.S.A.)

National Fire Protection Association (U.S.A.)



WHMIS (Classification) WHMIS CLASS E: Corrosive Liquid. WHMIS CLASS D-1: Material causing immediate and serious toxic effects.

The Hazard Ranking systems presented on this MSDS sheet provide only a quick reference for hazard information. The ENTIRE MSDS must be consulted to determine any specific hazards, First Aid measures, and PPE associated with this product.

Section 16. Other Information

Expiry Date **3 (Three Years) from the date of preparation indicated in Section 1.**

Validated by **Verified by**

Printed

Information Contact

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Validated on **NuTech Specialties, Inc.**