MATERIAL SAFETY DATA SHEET

FILE NO.: 0002

CALCIUM, LIME, RUST REMOVER

MSDS DATE: 9/15/2011

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Calcium, Lime, Rust Remover

MANUFACTURER: Flitz International, Ltd.

ADDRESS: 821 Mohr Avenue, Waterford, WI 53185

EMERGENCY PHONE: 1-262-534-5898

FAX PHONE: 1-262-534-2991

CHEMICAL FAMILY: Organic Acid Salt Solution

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:	CAS NO.	Percent
Organic Acid Salt	506-89-8	5-20
Proprietary Inhibitors	-	-

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview: This product is a colorless to slight amber liquid with a mild odor. It is corrosive to the eyes and a mild skin irritant. If ingested, this product may be harmful or fatal.

Potential Health Effects:

Eye: Causes burns to the eyes.

Acute eye irritation/corrosion test: This product was found to be Corrosive to the eyes when tested using the Modified Draize method (OECD Guidelines for Testing of Chemicals, Sec. 4-5, 1992.)

Skin: Prolonged or repeated contact can cause irritation.

Non Corrosive to Skin*: (as defined and tested in accordance with the U.S. OSHA's Hazard Communication Standard, DOT Hazardous Material Regulations, Canada's WHMIS regulations and TDG Regulations. Classified as a mild skin irritant as per the 1992 OECD Guideline for Testing of Chemicals, Number 404 "Acute Dermal Irritation/Corrosion.")*

Ingestion: This product may be harmful or fatal if ingested.

Inhalation: Not a likely route of exposure due to physical properties. Product has a low vapour pressure at room temperature and is not expected to present a significant inhalation hazard under ambient conditions. Product can be irritating to the respiratory tract if inhaled as a mist or if the material is vaporized.

Chronic Effects:

Skin: Prolonged or repeated exposure can cause drying, defatting, and dermatitis.

Carcinogenicity: Non-hazardous by WHMIS/OSHA criteria. Not listed by IARC, NTP, or ACGIH.

Teratogenicity, Mutagenicity, Reproductive Effects: This product was found not to be mutagenic when tested by the Ames Assay, (OECD Guidelines for Testing of Chemicals, Sec. 471)

Synergistic Materials: Not available

Potential Environmental Effects: No data available

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SECTION 4 - FIRST AID MEASURES

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Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and seek medical attention.
Skin: Immediately flush with mild soap and water for 15 minutes. Seek medical attention if irritation develops. Remove contaminated clothing and launder before reuse.
Eye: Immediately flush with water for 15 minutes. Seek medical attention.
Ingestion: Do not induce vomiting. If conscious, give 3-4 glasses of water to dilute and get immediate medical care.

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SECTION 5 - FIRE FIGHTING MEASURES

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Flammability: Not Flammable
Flash Point (°F, °C, PMCC): Does not ignite
Autoignition Temperature (°F, °C): Not applicable
Flame Propagation or Burning Rate of Solid Materials: Not applicable
Sensitivity to Static Discharge: Not applicable
Sensitivity to Mechanical Impact: Not applicable
Extinguishing Media: Water spray, carbon dioxide, and dry chemical.
Special Fire Fighting Procedures: Evacuate personnel to a safe area. Keep containers cool with water spray. Avoid breathing decomposition products. Wear self-contained breathing apparatus and full body protection.
Unusual Fire and Explosion Hazards: At temperatures above 60· C/140· F acid action on most metals may release hydrogen, a highly flammable and explosive gas.
Hazardous Decomposition Products: Thermal decomposition may yield oxides of carbon, nitrogen, and chlorine. Hydrogen gas may be released upon contact with certain metals.

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SECTION 6 – ACCIDENTAL RELEASE MEASURES

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Leak and Spill Procedure: Evacuate area. Ventilate area. Collect for disposal. Clean up remaining materials from spill with suitable absorbent. Small spills may be absorbed with non-reactive absorbent (sand) and placed in suitable, covered, labeled containers. For large spills provide diking or other appropriate containment to keep material from spreading. Prevent large spills from entering sewers or waterways. If diked material can be pumped, store recovered material in compatible drums for recovery or disposal. Observe all personal protection equipment recommendations.

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SECTION 7 – HANDLING AND STORAGE

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Keep Out Of Reach Of Children. Keep container tightly closed. Store in fiberglass, polyethylene, or polypropylene containers. Do not store in metal containers, especially aluminum. Storage in certain metal containers at temperatures above 60· C/140· F may result in hydrogen gas evolution. Do not store at temperatures above 48· C/120· F.

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SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

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Engineering Controls: If current ventilation practices are not adequate for minimizing exposures, additional ventilation or exhaust systems may be required.
Respiratory protection: Not normally required if good ventilation is maintained. Avoid breathing vapor and/or mist.
Eye protection: use chemical goggles or full face shield.
Skin protection: use impervious (rubber, nitrile) gloves.
Other protective clothing or equipment: Eye Bath, Safety Shower, Full Protective Clothing.
Work Hygienic Practices: The usual precaution for the handling of chemicals must be observed.

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SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

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Appearance: Clear liquid
Activity, %: 25 % Typical
Specific Gravity (H2O = 1): 1.08 +/- 0.2
Density (25· C): 9.02 lbs./gal
Solubility In Water: Soluble (100% in water)
Boiling Point: 100· C/212· F
Freezing Point: < -30· C
Odor: Mild Odor
pH: 0.7 (Typical)
pKa: 0.176
Normality: 7.4 +/- 0.2

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SECTION 10 – STABILITY AND REACTIVITY

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Stability: Stable up to 110· C / 230· F
Conditions to Avoid: Heating above 110· C results in an exothermic decomposition with rapid release of CO_2 gas.
Incompatible Materials: Avoid contact with oxidizers. This material may be extremely hazardous in contact with chlorates or nitrates. This material is acidic. Contact with hypochlorites (e.g. chlorine bleach, sulfides, or cyanides will liberate toxic gases. Contact with alkaline materials (e.g. aqua ammonia) will generate heat.
Hazardous Decomposition Products: Thermal decomposition may yield oxides of carbon, nitrogen, and chlorine. Hydrogen gas may be released upon contact with certain metals.
Hazardous Polymerization: Will not occur.

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SECTION 11 - TOXICOLOGICAL INFORMATION

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Carcinogenicity: Non-hazardous by WHMIS/OSHA criteria. Not listed by IARC, NTP, or ACGIH.
Teratogenicity, Mutagenicity, Reproductive Effects: This product was found not to be mutagenic when tested by the Ames Assay, (OECD Guidelines for Testing of Chemicals, Sec. 471)
Synergistic Materials: Not available
Acute eye irritation/corrosion test: This product was found to be Corrosive to the eyes when

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SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: 96 hour LC_0 >140 mg/L (rainbow trout) , 48 hour LC_{50} 71.1 mg/L (ceriodaphnia dubia), 15 minute IC_{50}, 16.23% effect at a concentration of 10 mg/L (Vibrio fischeri, 4H6002)
Environmental Fate: Urea is biodegradable

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SECTION 13 – DISPOSAL CONSIDERATIONS

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Review federal, provincial or state and local government requirements prior to disposal.

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SECTION 14 - TRANSPORT INFORMATION

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U.S. Department of Transportation: Not Regulated
Proper Shipping Name:
Hazard Class:
ID Number:
Packing Group:

Canadian T.D.G.: Regulated Material
Proper Shipping Name: Corrosive liquid, N.O.S.
Contains (urea monohydrochloride)
Hazard Class: 8
ID Number: UN 1760
Packing Group: III

Water Transportation (IMDG): Regulated Material
Proper Shipping Name: Corrosive liquid, N.O.S.
Contains (urea monohydrochloride)
Hazard Class: 8
ID Number: UN 1760
Packing Group: III

Air Transportation (IATA): Regulated Material
Proper Shipping Name: Corrosive liquid, N.O.S.
Contains (urea monohydrochloride)
Hazard Class: 8
ID Number: UN 1760
Packing Group: III

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SECTION 15 - REGULATORY INFORMATION
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Occupational Health & Safety Regulations:

WHMIS Classification: Class D - Division 2B,

Class E - Note: This material is corrosive to Aluminum only. Non-Corrosive to Skin & Mild Steel

OSHA & WHMIS: MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) and Canadian WHMIS regulations (Controlled Products Regulations under the Hazardous Products Act).

Environmental Regulatory Lists:
SARA: Section 313 (Toxic Chemical Release Reporting) 40 CFR 372 – None of the ingredients are listed.
Toxic Substances Control Act (TSCA): All the ingredients are listed on the Chemical Substance Inventory
Canadian Domestic Substance List (DSL): All ingredients are listed.

INTERNATIONAL INVENTORY LISTINGS:
Components in this product are listed on the: Australian AICS

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SECTION 16 - OTHER INFORMATION
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Shipping Containers:
Polyethylene Totes 275 gallon
Polyethylene Drums 55 Gallons
Polyethylene Pails 5 gallon

HMIS Rating
Health: 2
Flammability: 0
Reactivity: 0
PPE: B

Date: September 15, 2011

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Disclaimer: As the handling and use of products under user's conditions are beyond our control, no warranty, expressed or implied, including, but not limited to merchantability or fitness for a particular use, is made concerning this product. The user assumes all risk of use or handling whether or not in accordance with any directions or suggestions of the supplier. Seller shall not be liable to purchaser or any other person for loss or damages directly or indirectly arising from the use of our products, from breach of any warranty or from any other cause, the exclusive remedy against the seller being to require replacement or repair of defective goods.
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