Safety Data Sheet

5/18/2015

Section 1: Chemical Product and Company Identification

Product code: LC-600

Product name: Heavy Calcium Releaser

Recommended use: Clean Tile and Glass

Restrictions on sale: None

Manufacturer: RS Technologies, LLC
1900 W Chandler Blvd.
Suite 15-349
Chandler, AZ 85224

Company phone: 480-237-9363

Emergency phone: 1-800-535-5053

Section 2: Hazards Identification

OSHA/HCS Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification of the substance or mixture:

ACUTE TOXICITY – Category 4

SERIOUS EYE DAMAGE/EYE IRRITATION – Category 2A

GHS Label Elements:

Signal Word: Warning

Hazard Statements: Harmful if swallowed
Causes serious eye irritation

Precautionary Statements:

Prevention: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye or face protection.

Response: IF SWALLOWED: Call a poison center or doctor/physician if you feel unwell. Rinse mouth.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Hazards Not Otherwise Classified: None Known

Section 3: Composition and Information on Ingredients

Substance/mixture: Mixture

Name	CAS#	% by weight	Exposure Limits
Organic salt	confidential	5---50%	
Water	7732-18-5	25-90%	

The chemical identity and exact percentage of the composition has been withheld as it is a trade secret. There are no additional ingredients present which, within the current knowledge of the supplier and in concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4: First Aid Measures

Eye Contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth---to---mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin Contact: Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest for comfortable breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important Symptoms/Effects, Acute and Delayed

Potential Acute Health Effects

Eye Contact: Causes serious eye irritation

Inhalation: Exposure to decomposition products may cause a health hazard.

Skin Contact: May cause mild skin irritation

Ingestion: Harmful if swallowed. Irritating to mouth, throat and stomach.

Over Exposure Signs/Symptoms

Eye Contact: Adverse symptoms may include the following:

Pain or irritation

Watering

Redness

Inhalation: No known significant effects or critical hazards

Skin Contact: Adverse symptoms may include the following:

Irritation

Redness

Ingestion: Harmful if swallowed. Irritating to mouth, throat and stomach.

Indication of Immediate Medical Attention and Special treatment needed, if Necessary

Notes to Physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment

Protection of First Aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth---to –mouth resuscitation.

Section 5: Fire Fighting Measures

Extinguishing Media:

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire

Unsuitable extinguishing media: None known

Specific Hazards Arising from the chemical: Heating above 110°C results in an exothermic decomposition with release of CO_2 gas.

Hazardous thermal decomposition products: Decomposition products may include following materials: carbon dioxide
carbon monoxide
nitrogen oxides

Special protective actions for fire-fighters: No special measures are required.

Special protective equipment for fire---fighters: Fire---fighters should wear appropriate protective equipment and self---contained breathing apparatus (SCBA) with a full face piece operated in positive pressure mode.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

For non---emergency Personnel: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non---emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and Materials for Containment and Cleaning Up Spill:

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non---combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container or disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7: Handling and Storage

Precautions for Safe handling:

Protective Measures: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in original container or an approved alternative made from compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for Safe Storage, including any incompatibilities:

Keep out of the reach of children. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Do not store in unlabeled containers. Store upright to prevent leakage.

Section 8: Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limits: None

Appropriate Engineering Controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental Exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual Protection Measures:

Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/Face Protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin Protection:

Hand Protection: Chemical resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved should be approved by a specialist before handling this product.

Other Skin Protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory Protection: Use a properly fitted, air---purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9: Physical and Chemical Properties

Appearance

Physical state: Liquid (Clear)

Color: Colorless to pale amber

Odor: Not available

Odor Threshold: Not available

pH: <1 (as is)

Boiling Point: 100 °C (212°F)

Vapor Density: >1 (air=1)

Vapor Pressure: <0.013kPa (0.1mmHg) room temperature

Flash Point: >93.3°C (>200°F)

Flammability (solid, gas): Not available

Lower and upper Explosive (flammable) limits: Not available

Auto---ignition temperature: Not available

Solubility: Easily soluble in the following materials: water

Viscosity: 200cP

Relative Density 1.04

Evaporation Rate: >1 (Butyl acetate=1)

Section 10: Stability and Reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical Stability: Product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: No specific data.

Incompatible materials: Reactive or incompatible with the following materials: oxidizing materials. This material may be extremely hazardous in contact with chlorates and nitrates. Contact with hypo---chlorites (e.g. Chlorine bleach) sulfides or cyanides will liberate toxic gases. Contact with alkaline materials (e.g. Aqua ammonia) will generate heat. High concentrations of this material will react vigorously with carbonate scales which may carry vapor and so care must be taken to avoid inhalation.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11: Toxicological Information

Information on toxicological effects

Acute toxicity

Ingredient name	Result	Species	Dose	Exposure
Organic acid salt	LD50 Oral	rat	1357 mg/kg	--
	LD50 Dermal	rat	3698 mg/kg	--

Irritation/ Corrosion: Not a skin irritant.
Sensitization: No data available
Carcinogenicity: No components are listed as carcinogens by IARC, ACGIH,OSHA or NTP above the threshold of 0.1%
Specific target Organ toxicity (single exposure): No data available
Specific target Organ toxicity (repeated exposure): No data available
Aspiration Hazard: No data available
Information on the likely routes of exposure: Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects
Eye contact: Causes serious eye irritation.
Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact: May cause mild irritation.
Ingestion: Harmful if swallowed. Irritating to mouth, throat and stomach.
Symptoms related to the physical, chemical and toxicological characteristic
Eye contact: Adverse symptoms may include the following:
Pain or irritation Watering Redness
Inhalation: No known significant effects or critical hazards.
Skin contact: Adverse symptoms may include following:
Irritation Redness
Ingestion: Harmful if swallowed. Irritating to mouth, throat and stomach
Delayed and immediate effects and also chronic effects from short and long term exposure
Short term exposure
Potential immediate effects: No known significant effects or critical hazards.
Potential delayed effects: No known significant effects or critical hazards.
Long term exposure
Potential immediate effects: No known significant effects or critical hazards.
Potential delayed effects: No known significant effects or critical hazards.
Potential chronic health effects
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.
Numerical measures of toxicity
Acute toxicity estimates: No data available

Section 12: Ecological Information

Toxicity

Ingredient name	Result	Species	Exposure
Organic acid salt	LC50 709mg/kg	Daphnia Magna	48 Hour
	LC50 21.5 mg/L	Selenastrum Capricornutum	72 Hour
	LC50 >100mg/L	Rainbow Trout	96 Hour

Persistence and Degradability: Biodegradable based on components.
Bio---accumulative Potential: No data available
Mobility in soil
Soil/water partition coefficient (K_{OC}): Not available
Other adverse effects: No known significant effects or critical hazards.

Section 13: Disposal Considerations

Disposal Methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by---products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non---recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration of landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal or spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14: Transportation

	TDG/DOT Classification	IMDG	IATA
UN Number	Not regulated	Not regulated	Not regulated
UN proper shipping name	--	--	--
Transport Hazard Class(es)	--	--	--
Packing Group	--	--	--
Environmental Hazards	No	No	No
Additional Information	--	--	--

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available
Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of accident or spillage.

Section 15: Regulatory Information

United States – Patent No. 8,450,257 Canada – Patent No. 2,633,163
E.U. –Patent No. 06849550.6
U.S. Federal Regulations: United States Inventory (TSCA): All components are listed or exempted
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPS): Not listed
Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed
DEA List I Chemicals (Precursor Chemicals): Not listed
DEA List II Chemicals(Essential Chemicals): Not listed
SARA 302/304
Composition/Information on Ingredients
Not listed
SARA 311/312
Classification: Immediate (acute) health hazard
Composition/Information on Ingredients

Name	%	Fire Hazard	Sudden Release of Pressure	Reactive	Immediate (acute) Health Hazard	Delayed (chronic) Health Hazard
Organic acid salt	5-50	No	No	No	Yes	No

International Lists
National Inventory
Australia (AICS): At least one component is not listed.
Canada (DSL): All components are listed or exempted.
China (IECSC): At least one component is not listed.
Europe (EINECS): At least one component is not listed.
Japan (ENCS): All components are listed or exempted.
New Zealand (NZIoC): At least one component is not listed.
Philippines (PICCS): At least one component is not listed.
Republic of Korea (KECL): At least one component is not listed.
Taiwan (NECI): At least one component is not listed.

Section 16: Other Information

History
Date of issue: 05/18/2015
Date of previous issue: none
Version: 1
Revised Section(s): Not applicable
Prepared by: Manufacturer
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