Safety Data Sheet

Revision Date 12/16/15

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Renaissance Concrete Chemical Stain – Emerald Green
Manufacturer	:	Sentury Reagents, Inc. 2515 Commerce Dr. Rock Hill, SC 29730 USA
Telephone	:	803-327-6880
Fax	:	803-327-3872
Emergency Phone #	:	800-633-8253 PERS
International Phone #		011-801-629-0667
Supplier's account #		10613

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards

Target Organ Effect, Highly toxic by inhalation, Highly toxic by ingestion, Respiratory sensitizer, Corrosive, Carcinogen, Teratogen, Reproductive hazard

Target Organs

Liver, Kidney

GHS Label elements, including precautionary statements

Pictogram

Signal word	Danger

Hazard statement(s)

H272	May intensify fire; oxidizer.
H300	Fatal if swallowed.
H312 + H332	Harmful if contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H340	May cause genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure if inhaled. H410 Very toxic to aquatic life, with long lasting effects

Precautionary statement(s)

P201	Obtain special instructions before use.
P220	Keep/Store away from clothing/ combustible materials.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 + P311	Immediately call a POISON CENTER or doctor/physician.

HMIS Classification

Health hazard:	**4**
Chronic Health hazard	*****
Flammability:	**0**
Physical hazard	**0**
Personal protection:	**F**

NFPA Rating

Health hazard:	4
Fire:	0
Reactivity Hazard:	0

Potential Health Effects

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	Harmful if absorbed through skin. Causes skin burns.
Eyes	Causes eye burns.
Ingestion	Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : HCL

CAS-No.	EC-No.	Index-No.	Concentration
Phosphoric acid			
7664-38-2	231-633-2	015-011-00-6	9.0%
Hydrochloric acid			
7647-01-0	231-595-7	017-002-01-X	3.6 %
Water			
7732-18-5	231-791-2		63.1 %
Copper sulfate pentahydrate			
7758-99-8	231-847-6	029-004-00-0	22.2%
Sodium dichromate dihydrate			
7789-12-0	234-190-3	024-004-00-7	2.1%

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for fire-fighters
Wear self-contained breathing apparatus for firefighting if necessary.
Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas
Further information
The product itself does not burn.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental precautions
Do not let product enter drains.
Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Phosphoric acid	7664-38-2	TWA	1 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Eye, skin, & Upper Respiratory Tract irritation			
		STEL	3 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Eye, skin, & Upper Respiratory Tract irritation			
		TWA	1 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	1 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		STEL	3 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	1 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	3 mg/m3	USA. NIOSH Recommended Exposure Limits
Copper sulphate pentahydrate	7758-99-8	TWA	1 mg/m3	USA. NIOSH Recommended Exposure Limits
Hydrochloric acid	7647-01-0	C	2 ppm	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Upper Respiratory Tract irritation Not classifiable as a human carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories.			
		C	5 ppm 7 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
	The value in mg/m3 is approximate. Ceiling limit is to be determined from breathing-zone air samples.			
		C	5 ppm 7 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		C	5 ppm 7 mg/m3	USA. NIOSH Recommended Exposure Limits
	Often used in an aqueous solution.			
Sodium dichromate	7789-12-0	CEIL	0.1 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	0.0050 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		CEIL	0.0010 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z2
		TWA	0.05 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Confirmed human carcinogen: The agent is carcinogenic to humans based on the weight of evidence from epidemiologic studies.			

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Eye protection
Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin and body protection
Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	green

Safety data

pH	<1
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	not applicable
Ignition temperature	no data available
Auto ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	1.21 g/cm3
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions
no data available
Conditions to avoid
no data available
Materials to avoid
Bases, Amines, Alkali metals, Metals, hexalithium disilicide, permanganates, e.g. potassium permanganate, Fluorine
Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity
LD50 Oral - rat - 50 mg/kg

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available
Respiratory or skin sensitization
May cause allergic respiratory reaction.
Germ cell mutagenicity
May alter genetic material.
In vivo tests showed mutagenic effects
Genotoxicity in vitro - rat - Liver
DNA damage
Genotoxicity in vitro - Hamster - Lungs
Sister chromatid exchange
Genotoxicity in vivo - rat - Intratracheal
DNA damage
Carcinogenicity
Carcinogenicity - rat - Intratracheal
Tumorigenic:Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration: Tumors.
This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.
Possible human carcinogen

IARC: 1 - Group 1: Carcinogenic to humans (Sodium dichromate dihydrate)

NTP: No component of this product presents at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity
May cause congenital malformation in the fetus.
Presumed human reproductive toxicant
May cause reproductive disorders.
Specific target organ toxicity - single exposure (GHS)
no data available
Specific target organ toxicity - repeated exposure (GHS)
Inhalation - Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard
no data available
Potential health effects

Inhalation	May be fatal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion	May be fatal if swallowed. Causes burns.
Skin	May be harmful if absorbed through skin. Causes skin burns. May be fatal if absorbed through skin.
Eyes	Causes eye burns.

Signs and Symptoms of Exposure
Ulceration, Liver injury may occur., Kidney injury may occur.
Additional Information
RTECS: HX7750000

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to daphnia and other aquatic invertebrates.	EC50 - Daphnia magna (Water flea) - 0.024 mg/l - 48 h

Persistence and degradability
no data available
Bioaccumulative potential
no data available

Mobility in soil
no data available
PBT and vPvB assessment
no data available
Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN3264, Corrosive liquids, acidic, inorganic, n.o.s., (Phosphoric acid mixture), 8, PGIII
FOR 1 GALLON JUG: ORM-D CONSUMER COMMODITY

IMDG

UN3264, Corrosive liquids, acidic, inorganic, n.o.s., (Phosphoric acid mixture), 8, PGIII

IATA

UN3264, Corrosive liquids, acidic, inorganic, n.o.s., (Phosphoric acid mixture), 8, PGIII

15. REGULATORY INFORMATION

OSHA Hazards

Harmful by ingestion. Corrosive

DSL Status

All components of this product are on the Canadian DSL list.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS No.	Revision Date
Phosphoric acid	7664-38-2	1993-04-24
Hydrochloric acid	7647-01-0	1993-04-24
Copper sulfate pentahydrate	7758-99-8	2007-03-01
Sodium dichromate dihydrate	7789-12-0	1993-04-24

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components	CAS No.	Revision Date
Phosphoric acid	7664-38-2	1993-04-24
Hydrochloric acid	7647-01-0	1993-04-24
Copper sulfate pentahydrate	7758-99-8	2007-03-01
Sodium dichromate dihydrate	7789-12-0	1993-04-24

Pennsylvania Right To Know Components	CAS No.	Revision Date
Phosphoric acid	7664-38-2	1993-04-24
Hydrochloric acid	7647-01-0	1993-04-24
Copper sulfate pentahydrate	7758-99-8	2007-03-01
Sodium dichromate dihydrate	7789-12-0	1993-04-24

California Prop. 65 Components	CAS No.	Revision date
WARNING! This product contains a chemical known to the State of California to cause cancer. Sodium dichromate dihydrate	7789-12-0	2008-12-19

16. OTHER INFORMATION

Further information: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sentury Reagents, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.