1. Identification

Product identifier	CSR PLUS® LOW FOAM	
Other means of identification		
Product code		
Recommended use	Calcium scale remover	
Recommended restrictions	None known.	

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name	USALCO, LLC	
Address	2601 Cannery Ave. Baltimore, MD 21226 United States	
Telephone	800-259-4456	8am - 4pm (Pacific Time Zone)
E-mail	Not available.	
Emergency phone number	800-255-3924	ChemTel

2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	This mixture does not meet the classification criteria according to OSHA HazCom 2012.	
OSHA defined hazards	This mixture does not meet the classification criteria according to OSHA HazCom 2012.	

Label elements

Signal word	Danger
Hazard statement	May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.
Precautionary statement	
Prevention	Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment (see this label). Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Inhalation could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed. In extreme cases, tooth erosion could result.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Component 1	Trade Secret	Trade Secret	10 - 20
Other components below reportable levels			70 - < 90

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. If breathing stops, provide artificial respiration. Call a physician or poison control center immediately.
Skin contact	Immediately flush skin with running water for at least 20 minutes. Take off immediately all contaminated clothing. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Do not rub area of contact. Cover wound with sterile dressing. Leather and shoes that have been contaminated with the solution may need to be destroyed.
Eye contact	Immediately flush eyes with plenty of water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Rinse mouth. Do not induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions.
Most important symptoms/effects, acute and delayed	Corrosive to the eyes and may cause severe damage including blindness. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct skin contact may cause corrosive skin burns, deep ulcerations and possibly permanent scarring. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause severe irritation to the nose, throat, and respiratory tract. Symptoms may include upper respiratory irritation, coughing, and breathing difficulties. May cause severe irritation and corrosive damage in the mouth, throat and stomach. Symptoms may include abdominal pain, vomiting, burns, perforations, bleeding and eventually death.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Immediate medical attention is required. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Causes chemical burns. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. Contact with water will generate considerable heat.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire fighting equipment/instructions	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Evacuate the area promptly. Move containers from fire area if you can do so without risk. Fight fire from upwind to avoid exposure to combustion products.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
Hazardous combustion products	Burning will produce toxic fumes containing carbon monoxide and carbon dioxide. Hydrogen and chlorine gas.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up	Immediately evacuate personnel to safe areas. Ventilate the contaminated area. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Dike the spilled material, where this is possible. Dilute acid with water and neutralize with Sodium Carbonate (soda ash) or lime. Absorb residues with a non-combustible absorbent material (e.g. sand, vermiculite) and collect adsorbate for disposal. Local authorities should be advised if significant spillages cannot be contained. For waste disposal, see section 13 of the SDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep containers closed when not in use. Wash hands after handling and before eating. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Keep away from metals and other incompatibles. Label containers appropriately.
Conditions for safe storage, including any incompatibilities	Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS). May be corrosive to some stainless steels, carbon steel, copper, bronze, etc.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Component 1	Ceiling	7 mg/m3 5 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Component 1	Ceiling	2 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Component 1	Ceiling	7 mg/m3 5 ppm

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection	Tight fitting safety goggles. Face shield is recommended. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. Advice should be sought from glove suppliers.
Other	Use of an impervious apron is recommended. Use of impervious boots is recommended. Advice should be sought from glove suppliers.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. Seek advice from respiratory protection specialists.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Liquid.
Color	Clear
Odor	Moderate.
Odor threshold	Not available.
pH	< 1
Melting point/freezing point	< 32 °F (< 0 °C)
Initial boiling point and boiling range	212 °F (100 °C)
Flash point	Does not burn
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not Applicable
Flammability limit - lower (%) temperature	Not Applicable
Flammability limit - upper (%)	Not Applicable
Flammability limit - upper (%) temperature	Not Applicable
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.07
Bulk density	8.99 lbs/gal
Solubility(ies)	
Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not Applicable
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport. May be corrosive to metals. Contact with water will generate considerable heat.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. Keep away from heat, sparks and open flame. Exposure to water vapor.
Incompatible materials	Bases. Strong oxidizing agents. Reducing agents. Metals. Amines. Alkaline. Chlorinated compounds.
Hazardous decomposition products	None known, refer to hazardous combustion products in Section 5. In the event of fire the following can be released: Carbon oxides. Chlorine. Hydrogen chloride.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause severe irritation to the nose, throat, and respiratory tract.
Skin contact	Causes severe skin burns.

Eye contact	Causes serious eye damage.
Ingestion	May cause severe irritation and corrosive damage in the mouth, throat and stomach.
Most important symptoms/effects, acute and delayed	Corrosive to the eyes and may cause severe damage including blindness. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct skin contact may cause corrosive skin burns, deep ulcerations and possibly permanent scarring. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause severe irritation to the nose, throat, and respiratory tract. Symptoms may include upper respiratory irritation, coughing, and breathing difficulties. May cause severe irritation and corrosive damage in the mouth, throat and stomach. Symptoms may include abdominal pain, vomiting, burns, perforations, bleeding and eventually death.
Information on toxicological effects	
Acute toxicity	Hazardous by OSHA criteria. See data for individual ingredient acute toxicity data. Acute Toxicity (oral) - Category 4. Harmful if swallowed. May cause severe irritation and corrosive damage in the mouth, throat and stomach. May cause irritation to the nose, throat and upper respiratory tract. Causes severe skin irritation. Corrosive to the eyes and may cause severe damage including blindness.

Product	Species	Test Results
CSR Plus (CAS Mixture)		
Acute		
Inhalation		
LC50	Rat	7.46 mg/l, 4 hours (Calculated ATE)
Oral		
LD50	Rat	1759.01 mg/kg (Calculated ATE)

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Hazardous by OSHA criteria. Causes severe skin burns. Causes severe skin burns and eye damage. Skin corrosion/irritiation - Category 1
Serious eye damage/eye irritation	Hazardous by OSHA criteria. Causes serious eye damage. Category 1
Respiratory or skin sensitization	
Respiratory sensitization	Not expected to be a respiratory sensitizer.
Skin sensitizer	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Acid Blue 1 (CAS 129-17-9)	3 Not classifiable as to carcinogenicity to humans.
Hydrochloric Acid (CAS 7647-01-0)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Hazardous by OSHA criteria. Specific Target Organ Toxicity (STOT), Single Exposure Respiratory tract irritation. Category 3
Specific target organ toxicity - repeated exposure	Not classified as a specific target organ toxicity -repeated exposure.
Aspiration toxicity	Not expected to be an aspiration hazard.
Chronic effects	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

12. Ecological information

Ecotoxicity	Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems. Because of the high pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Components		Species	Test Results
Hydrochloric Acid (CAS 7647-01-0)			
Aquatic			
Acute			
Algae	EC50	Green algae (Selenastrum capricornutum)	0.492 mg/l, 72 hours
Crustacea	EC50	Water flea (Daphnia magna)	0.492 mg/l, 48 hours
Fish	LC50	Carp (Cyprinus carpio communis)	4.92 mg/l, 96 hours
Chronic			
Algae	NOEC	Green algae (Selenastrum capricornutum)	0.097 mg/l, 72 hours

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	The product itself has not been tested.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUIDS, N.O.S. (HYDROCHLORIC ACID RQ = 20873 LBS)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	III
Environmental hazards	
Marine pollutant	NO
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB3, T7, TP1, TP28
Packaging exceptions	154
Packaging non bulk	203
Packaging bulk	241

IATA

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUIDS, N.O.S. (HYDROCHLORIC ACID)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	III
Environmental hazards	NO

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed.

Cargo aircraft only Allowed.

IMDG

UN number UN1760

UN proper shipping name CORROSIVE LIQUIDS, N.O.S. (HYDROCHLORIC ACID)

Transport hazard class(es)

Class 8

Subsidiary risk -

Label(s) 8

Packing group III

Environmental hazards

Marine pollutant NO

EmS Not available.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code This substance/mixture is not intended to be transported in bulk.

DOT

IATA; IMDG

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Hydrochloric Acid (CAS 7647-01-0) Listed.

SARA 304 Emergency release notification

Hydrochloric Acid (CAS 7647-01-0) 5000 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories: Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Hydrochloric Acid	7647-01-0	5000	500 lbs		

SARA 311/312 Hazardous chemical: No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Hydrochloric Acid	7647-01-0	15.75

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Hydrochloric Acid (CAS 7647-01-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Hydrochloric Acid (CAS 7647-01-0)

Safe Drinking Water Act (SDWA): Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Hydrochloric Acid (CAS 7647-01-0) 6545

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Hydrochloric Acid (CAS 7647-01-0) 20 %WV

DEA Exempt Chemical Mixtures Code Number

Hydrochloric Acid (CAS 7647-01-0) 6545

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Hydrochloric Acid (CAS 7647-01-0)

US. New Jersey Worker and Community Right-to-Know Act

Acid Blue 1 (CAS 129-17-9)
Hydrochloric Acid (CAS 7647-01-0)

US. Pennsylvania Worker and Community Right-to-Know Law

Hydrochloric Acid (CAS 7647-01-0)

US. Rhode Island RTK

Hydrochloric Acid (CAS 7647-01-0)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

NSF/ANSI Std. 60	Listed – Other
Schedule B Export Code	3815.90.9270

16. Other information, including date of preparation or last revision

Issue date	8-22-2017
Version #	00
List of abbreviations	ACGIH: American Conference of Governmental Industrial Hygienists CAS: Chemical Abstract Services CEPA: Canadian Environmental Protection Act CPR: Controlled Products Regulation CSA: Canadian Standards Association DOT: Department of Transportation DSL: Domestic Substance List HMIS: Hazardous Materials Identification System HPA: Hazardous Protection Act HSDB: Hazardous Substances Data Bank IARC: International Agency for Research on Cancer IATA: International Air Transport Association ICAO: International Civil Aviation Organisation IMDG: International Maritime Dangerous Goods LC: Lethal Concentration LD: Lethal Dose NFPA: National Fire Protection Association NOEC: No observable effect concentration NTP: National Toxicology Program OECD: Organisation for Economic Co operation and Development OEL: National occupational exposure limits OSHA: Occupational Safety and Health Administration PPE: Personal Protective Equipment RCRA: Resource Conservation and Recovery Act RQ: Reportable Quantity RTECS: Registry of Toxic Effects of Chemical Substances SARA: Superfund Amendments and Reauthorization Act SDS: Safety Data Sheet STEL: Short Term Exposure Limit TWA: Time Weighted Average WEL: Workplace Exposure Limit
References	Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2014 (Chempendium, RTECs, HSDB, INCHEM) European Chemicals Bureau, Existing Chemicals Work Area, EINECS Information System, 2014. Material Safety Data Sheet from manufacturer. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2014.

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Revision Information	This document has undergone significant changes and should be reviewed in its entirety.