SAFETY DATA SHEET

crlaurence.com

Issue Date: 11-17-14 **Revision Date:** 01-12-15 **Version** 1

1. IDENTIFICATION

Product Identifier
Product Name C.R. Laurence Water Spot Remover

Other means of identification

Catalog Numbers C2020, C2030

Recommended use of the chemical and restrictions on use
Recommended Use Cleaning agent.

Details of the supplier of the safety data sheet
Supplier Address
C.R. Laurence Co., Inc.
2503 E. Vernon Ave.
Los Angeles, Ca 90058-1826
Telephone: (323) 588-1281

Emergency Telephone Number

Emergency Telephone Number Chemtrec: 1-800-424-9300 (24 hours)

2. HAZARDS IDENTIFICATION

Appearance Clear liquid **Physical State** Liquid **Odor** Slightly acidic

Classification

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1

Signal Word
Danger

Hazard Statements
Harmful if swallowed
Harmful in contact with skin
Causes skin irritation
Causes serious eye damage

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements - Response
IF IN EYES: Rinse cautiously with water several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a poison center or doctor/physician.
IF ON SKIN: Wash with plenty of soap and water.
Take off contaminated clothing and wash it before reuse.
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Hydrofluoric acid	7664-39-3	<2
Hydrochloric acid	7647-01-0	<2

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact — Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.

Skin Contact — Immediately flush with large quantities of cool water, while removing contaminated clothing and shoes, until all acid is removed, paying particular attention to skin under nails. Get medical attention. Follow by immersing affected part in ice-cold saturated solution of magnesium sulfate (Epsom salt). Wash contaminated clothing before reuse.

Inhalation — Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion — Do not induce vomiting. Dilute by giving a large amount of water. Immediately follow with mineral oil or milk of magnesia. Get medical attention.

Most important symptoms and effects

Symptoms — Contact will cause irritation and redness to exposed areas. Blindness may occur. May cause irritation to the mucous membranes and upper respiratory tract.

Indication of any immediate medical attention and special treatment needed

Notes to Physician — Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical
Acid reacts with most metals to release hydrogen gas which can form explosive mixtures with the air.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required.

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so.
Methods for Clean-Up	Large spills should be collected by pumping into closed containers for recovery or disposal. For small spills, neutralize with sodium bicarbonate, soda ash, or dilute caustic soda solution. Flush area with water.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling	Wash thoroughly after handling. Use personal protection recommended in Section 8. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Emptied container retains product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
Incompatible Materials	Strong oxidizing agents. Acids. Aluminum, tin, zinc, bronze, and brass.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrochloric acid 7647-01-0	Ceiling: 2 ppm	(vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m^3 Ceiling: 5 ppm Ceiling: 7 mg/m^3	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m^3
Hydrofluoric acid 7664-39-3	TWA: 0.5 ppm F TWA: 2.5 mg/m^3 F S* Ceiling: 2 ppm F	TWA: 3 ppm F TWA: 2.5 mg/m^3 F TWA: 2.5 mg/m^3 dust (vacated) TWA: 3 ppm F (vacated) TWA: 2.5 mg/m^3 (vacated) STEL: 6 ppm F	IDLH: 30 ppm Ceiling: 6 ppm 15 min Ceiling: 5 mg/m^3 15 min TWA: 3 ppm TWA: 2.5 mg/m^3

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles).

Skin and Body Protection Wear rubber or neoprene gloves.

Respiratory Protection Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure limits are exceeded.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid		
Appearance	Clear liquid	**Odor**	Slightly acidic
Color	Clear	**Odor Threshold**	Not determined

Property	Values	Remarks • Method
pH	Not determined	
Melting Point/Freezing Point	0 °C / 32 °F	
Boiling Point/Boiling Range	100 °C / 212 °F	
Flash Point	Not available	
Evaporation Rate	< 1	(Ether = 1)
Flammability (Solid, Gas)	n/a-liquid	
Upper Flammability Limits	Not available	
Lower Flammability Limit	Not available	
Vapor Pressure	Not determined	
Vapor Density	10-30 mm Hg	at 21.1°C (70.0°F)
Specific Gravity	>1.1	(1=Water)
Water Solubility	Completely soluble	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
VOC Content	Not applicable	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid
Keep out of reach of children.

Incompatible Materials
Strong oxidizing agents. Acids. Aluminum, tin, zinc, bronze, and brass.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes serious eye damage.

Skin Contact Causes skin irritation. Harmful in contact with skin.

Inhalation Avoid breathing vapors or mists.

Ingestion Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrochloric acid 7647-01-0	= 700 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	= 3124 ppm (Rat) 1 h
Hydrofluoric acid 7664-39-3	-	-	= 850 mg/m^3 (Rat) 1 h = 1276 ppm (Rat) 1 h

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Not classifiable as a human carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrochloric acid 7647-01-0		Group 3		

Legend
IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"

Numerical measures of toxicity
Product Information

Oral LD50	> 500 mg/kg
Dermal LD50	> 1000 mg/kg
Inhalation LC50	> 11.89 mg/L (aerosolized)

12. ECOLOGICAL INFORMATION

Ecotoxicity
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrochloric acid 7647-01-0		282: 96 h Gambusia affinis mg/L LC50 static		
Hydrofluoric acid 7664-39-3		660: 48 h Leuciscus idus mg/L LC50		270: 48 h Daphnia species mg/L EC50

Persistence/Degradability
Products are inherently biodegradable.

Bioaccumulation
This material is not expected to significantly bioaccumulate.

Mobility
The material is completely soluble in water

Chemical Name	Partition Coefficient
Hydrofluoric acid 7664-39-3	-1.4

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Hydrofluoric acid 7664-39-3	U134			U134

14. TRANSPORT INFORMATION

DOT	Not regulated
IATA	Not regulated
IMDG	Not regulated

15. REGULATORY INFORMATION

International Inventories

Not determined

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Hydrofluoric acid 7664-39-3	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ
Hydrochloric acid 7647-01-0	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Hydrochloric acid - 7647-01-0	7647-01-0	<2	1.0
Hydrofluoric acid - 7664-39-3	7664-39-3	<2	1.0

CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrofluoric acid 7664-39-3 (<2)	100 lb			X
Hydrochloric acid 7647-01-0 (<2)	5000 lb			X

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Hydrochloric acid 7647-01-0	X	X	X
Hydrofluoric acid 7664-39-3	X	X	X

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	Not determined	Not determined	Not determined	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
	2	0	1	B

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Disclaimer

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End of Safety Data Sheet