

Issue Date: 11-17-14

Revision Date: 01-22-20

Version 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier**Product Name:** C.R. Laurence Water Spot Remover**Other means of identification****CRL Catalog Numbers:** C2020 (Gallons), C2030 (Quarts)**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 Phone 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

2. HAZARDS IDENTIFICATION (CONTINUED)

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 for 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 | Odor | Slightly acidic |
| Appearance | Clear liquid | Odor Threshold | Not determined |
| Color | Clear | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|------------------------------|--------------------|-------------------------|
| 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 | 1.01 | (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"

11. TOXICOLOGICAL INFORMATION (CONTINUED)

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****HMIS****Health Hazards**

Not determined

Health Hazards

2

Flammability

Not determined

Flammability

0

Instability

Not determined

Physical Hazards

1

Special Hazards

Not determined

Personal Protection

B

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Revision Note:

Review and update

Disclaimer

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End of Safety Data Sheet