SAFETY DATA SHEET

Section 1: Identification

Product Name: Hydro-Cleanse
Product Use: Water treatment
Not recommended for: No available information.

EZ-FLO Fertilizing Systems
3640 Cincinnati Ave., #C
Rocklin, CA 95765
www.ezfloinjection.com
Emergency Phone: (866) 393-5601
Fax: (916) 652-5754

FOR CHEMICAL EMERGENCY:
Call CHEMTREC, day or night
(800) 424-9300, USA/Canada
(703) 527-3887, International

Section 2: Hazard(s) Identification

GHS Ratings:

Skin corrosive	1A
Eye corrosive	1

GHS Hazards

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

GHS Precautions

P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P310	Immediately call a POISON CENTER or doctor/physician.
P321	Specific treatment (see section 4 on this SDS).
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/ regional/ national/ international regulations.

Signal Word: Danger



Section 3: Composition/Information on Ingredients

Chemical Name	CAS number	Weight Concentration %
Citric acid, anhydrous	77-92-9	30.00% - 40.00%
Gluconic acid solution	526-95-4	1.00% - 5.00%
Glacial acetic acid	64-19-7	1.00% - 5.00%

Section 4: First-Aid Measures

If inhaled
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. If unconscious, place in recovery position and seek medical attention immediately. Maintain an open airway. If symptoms appear or you feel unwell, seek medical advice/attention immediately. Loosen tight clothing such as a collar, tie, belt or waistband. In case of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

If in eyes
Rinse continuously with water for several minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses if present and easy to do, continue rinsing. Seek medical advice/attention immediately.

If on skin (or hair)
Remove immediately all contaminated clothing. Rinse skin with plenty of soap and water for several minutes. If irritation/rash develops or persists, seek medical advice/attention immediately. Wash contaminated clothing before reuse.

If swallowed
Seek immediate medical advice/attention. Call a poison control center or physician. Rinse mouth with water. Remove dentures, if any. Move victim to fresh air and keep at rest in a position comfortable for breathing. If the 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 the lungs. Never give anything by mouth to an unconscious person. If unconscious, place victim in recovery position and seek medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband.

Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in section 11.

Indication of any immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Symptoms may be delayed.

General information
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.

Section 5: Fire-Fighting Measures

Suitable extinguishing media
Water fog. Water spray. Dry chemical. Carbon dioxide (CO_2). Foam.

Unsuitable extinguishing media
None known.

Special hazards arising from the chemical(s)
None known.

Hazardous combustion products
See section 10.

Firefighting
If evacuation of personnel is necessary, evacuate to an upwind area. Decontaminate personnel and equipment with a water wash-down after fire and smoke exposure.

Firefighting equipment
Firemen and emergency responders: wear full turnout gear or Level A equipment, including positive-pressure, self-

contained breathing apparatus (SCBA).

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away from the contaminated area. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Wear suitable protective clothing. For personal protection, see section 8.

Small spills
Ventilate the contaminated area. Wipe up with absorbent material or mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings. Collect the saturated towels or sorbent and transfer into a covered container.

Large spills
Prevent this material from entering sewers and watercourses by diking or impounding the spilled material. Ventilate the contaminated area. Mix the appropriate sorbent into the spilled material. Use an absorbent like sawdust for aqueous, waterborne, and solvent-borne coatings. Collect the saturated sorbent and transfer it into a covered container.

Steel containers are acceptable for all acid-free wastes. Use suitable plastic containers for acid-bearing wastes. Dispose of the waste in compliance with all Federal, state, regional, and local regulations.

Section 7: Handling and Storage

Precautions for safe handling
Avoid inhalation of vapors/spray and contact with skin and eyes. Do not ingest. Use only with adequate ventilation.

Observe good industrial hygiene practices. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, or processed. Workers should wash hands and face, before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities
Prevent from freezing. Do not store above 120 F (49 C). Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink.

Section 8: Exposure Controls / Personal Protection

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Citric acid, anhydrous 77-92-9	TWA: 15 mg/m3 (Total dust), 5 mg/m3 (Respirable fraction)	Not Established	DFG MAKs: TWA: 4 mg/m3 (Total dust), 1.5 mg/m3 (Respirable fraction)
Gluconic acid solution 526-95-4	Not Established	Not Established	Not Established
Glacial acetic acid 64-19-7	TWA: 10.00 ppm, 25.0 mg/m3 (The value in mg/m3 is approximate)	TWA: 10.00 ppm (Pumonary function, Upper respiratory Tract irritation, Eye irritation); STEL: 15.00 ppm (Pulmonary function, Upper respiratory tract irritation, Eye irritation)	NIOSH: STEL: 15.00 ppm, 37.0 mg/m3 (Can be found in concentrations of 5-8% in vinegar); TWA: 10.00 ppm, 25.0 mg/m3 (Can be found in concentrations of 5-8% in vinegar)

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

Ventilation
Good general ventilation 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.

Personal protective equipment

Eye/face protection
Splash goggles are recommended. Avoid contact with eyes. If extra protection is required, wear a face shield over the splash goggles. Face shields are effective only if worn in addition to splash goggles.

Hand protection
Wear chemical-resistant gloves (butyl rubber or neoprene). Protective gloves should be inspected frequently and discarded when they exhibit cuts, tears, pinholes, or signs of excessive wear. Wash and dry hands after use.

Body protection
Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment. Chemical respirator with organic vapor cartridge.

Section 9: Physical and Chemical Properties

Appearance: Green liquid	**Explosive limits:** No Data
Odor: No Data	**Vapor pressure:** No Data
Odor threshold: No Data	**Vapor density:** No Data
pH 1.0 - 1.4	**Relative density:** No Data
Specific gravity: 1.222	**Solubility:** No Data
Boiling point: No Data	**Boiling range:** No Data
Melting point/Freezing point: No Data	**Evaporation rate:** No Data
Flash Point: No Data	**Autoignition temperature:** No Data
Flammability: No Data	**Decomposition temperature:** No Data
Partition coefficient (n-octanol/water): No Data	**Viscosity:** No Data

Section 10: Stability and Reactivity

Chemical stability
STABLE

Incompatible materials
Metals
Oxidizing agents
Soluble carbonates
Soluble phosphates

Strong oxidizing agents
Citric acid when wet or in a solution is corrosive to brass, copper, zinc, aluminum and their alloys, lead, cast iron and steel (not stainless steel).
Metal nitrates
Strong bases (sodium / potassium / barium hydroxides)

Hazardous decomposition

Acrid smoke
Carbon dioxide
Carbon monoxide
Irritating fumes

Hazardous polymerization will not occur.

Section 11: Toxicological Information

Mixture Toxicity
Inhalation Toxicity LC50: 228mg/L
Component Toxicity
64-19-7 Glacial acetic acid
Oral LD50: 3,310 mg/kg (rat) Dermal LD50: 1,112 mg/kg (rat)

Likely routes of exposure

Inhalation Skin contact Eye contact Ingestion

Exposure may affect the following organs

Effects of exposure
Ingestion Ingestion may cause gastrointestinal irritation. Symptoms can include nausea, diarrhea, vomiting, and abdominal pain.

Skin contact Causes severe skin burns and eye damage.

Inhalation May cause respiratory irritation. Symptoms can include sore throat, coughing, sneezing, and labored breathing.

Eye contact Causes serious eye damage. Symptoms can include irritation, pain, watering and/or redness.

Conditions aggravated
No data available

Carcinogenicity
The following chemicals comprise 0.1% or more of this mixture and are listed and/or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA, or ACGIH.

CAS Number	Description	% Weight	Carcinogen Rating
None			N/A

Section 12: Ecological Information

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects
No data available

Section 13: Disposal Considerations

Disposal instructions
Do not allow this material to drain into sewers/water supplies. All waste must be handled in accordance with local, state and federal regulations or with regulations of Canada and its Provinces. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

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 (refer to 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.

Section 14: Transport Information

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT	Not regulated by DOT			

Section 15: Regulatory Information

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING! This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

- None

The following chemicals are listed under Canadian NDSL

- None

Section 16: Other Information

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