



Treating water like our lives depend on it.

## MATERIAL SAFETY DATA SHEET (MSDS) - SystemClear Advanced

### SECTION 1 - Identification of the Material & Supplier

#### Leasam Water Solutions

Manufacturing Facility: 201 - 645 Fort Street, Victoria B.C. V8W 1G2

Telephone: +1.250.640.6406

E-mail: [info@leasamwater.com](mailto:info@leasamwater.com)

Website: [www.leasamwater.com](http://www.leasamwater.com)

**Emergency Advice All Hours:** +1.250.640.6406

<b>Chemical Nature:</b>	Blend of food grade alkaline salts and other ingredients.
<b>Trade Name:</b>	SystemClear Advanced (formerly Clean CT-02™)
<b>Product Use:</b>	Removes and prevents the recurrence of scale on metal surfaces in Heating, Ventilation and Air Conditioning (HVAC) systems and other hydronic heating and cooling equipment and applications.
<b>Creation Date:</b>	July 1st, 2020
<b>Date Issued:</b>	July 1st, 2020 (valid for 5 years from this date)

### SECTION 2 - Hazards Identification

#### STATEMENT OF HAZARDOUS NATURE

This product is classified as: not classified as hazardous according to the criteria of EU. Not a Dangerous Good according to the EU Code.

**Risk Phrases:** not hazardous - no criteria found.

**Safety Phrases:** S23, S36, S24/25. Do not breathe dusts. Wear suitable protective clothing. Avoid contact with skin and eyes.

**SUSMP Classification:** none allocated.

**ADG Classification:** none allocated. Not a Dangerous Good according to EU Code, Australian Dangerous Goods (ADG) Code, IATA or IMSBC criteria.

**UN Number:** none allocated.

**GHS Signal word:** none - not hazardous.

## HAZARD STATEMENT

### Prevention

- P102: keep out of reach of children.
- P262: do not get in eyes, on skin, or on clothing.
- P281: use personal protective equipment as required.

### Response

- P353: rinse skin or shower with water.
- P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P370+P378: in case of fire, use carbon dioxide, dry chemical, foam, water fog.

### Storage

- P402+P404: store in a dry place. Store in a closed container.

### Disposal

- P501: if they cannot be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

## EMERGENCY OVERVIEW

**Physical Description & Colour:** white crystalline powder.

**Odour:** no odour.

**Major Health Hazards:** no significant risk factors have been found for this product.

## POTENTIAL HEALTH EFFECTS

### Inhalation

- Short Term Exposure:** available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.
- Long Term Exposure:** no data for health effects associated with long-term inhalation.

### Skin Contact

- Short Term Exposure:** available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be mildly irritating, but is unlikely to cause anything more than mild discomfort, which should disappear once contact ceases.
- Long Term Exposure:** no data for health effects associated with long-term skin exposure.

### Eye Contact

- Short Term Exposure:** this product is believed to be mildly irritating, to eyes, but is unlikely to cause anything more than mild transient discomfort.
- Long Term Exposure:** no data for health effects associated with long-term eye exposure.

### Ingestion

- Short Term Exposure:** significant oral exposure is considered to be unlikely. However, this product is believed to be mildly irritating to mucous membranes but is unlikely to cause anything more than mild transient discomfort.
- Long Term Exposure:** no data for health effects associated with long-term ingestion.

### Carcinogen Status

- SWA:** no significant ingredient is classified as carcinogenic by SWA.
- NTP:** no significant ingredient is classified as carcinogenic by NTP.
- IARC:** no significant ingredient is classified as carcinogenic by IARC.

## SECTION 3 - Composition/Information on Ingredients

Ingredients	CAS No.	Conc.	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Food grade salt dehydrate of citric acid	6132-04-3	10 - 50%	not set	not set
Food grade Edatate disodium	64-02-8	< 10%	not set	not set

Hydrated aluminosilicate	1318-0201	< 15%	not set	not set
Other non-hazardous food grade ingredients	Various	to 100%	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

## SECTION 4 - First Aid Measures

**Inhalation:** first aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**Skin Contact:** gently brush away excess particles. Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

**Eye Contact:** quickly and gently brush particles from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed, while holding the eyelid(s) open. Obtain medical advice immediately if irritation occurs. Take special care if exposed person is wearing contact lenses.

**Ingestion:** if product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

## SECTION 5 - Fire Fighting Measures

**Fire and Explosion Hazards:** the major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. This product, if scattered, may form flammable or explosive dust clouds in air. Fire decomposition products from this product are likely to be irritating if inhaled.

**Extinguishing Media:** in case of fire, use carbon dioxide, dry chemical, foam, water fog.

**Fire Fighting:** if a significant quantity of this product is involved in a fire, call the fire brigade. Do not scatter spilled material with high-pressure water jets.

**Flash point:** if exposed to either elevated temperatures or an ignition source, product can burn.

**Upper Flammability Limit:** no data.

**Lower Flammability Limit:** no data.

**Autoignition temperature:** no data.

**Flammability Class:** no data.

## SECTION 6 - Accidental Release Measures

**Accidental release:** minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or watercourses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include cotton, rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable Dust Mask. Use a P1 mask, designed for use against mechanically generated particles e.g. silica & asbestos.

Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. After spills, wash area-preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

## SECTION 7 - Handling & Storage

**Handling:** keep exposure to this product to a minimum, and minimize the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimize risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** make sure that containers of this product are kept tightly closed. Keep containers dry and away from water. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Check packaging - there may be further storage instructions on the label.

## SECTION 8 - Exposure Controls & Personal Protection

Exposure limits have not been established for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** no special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that dusts are minimized. Use adequate ventilation to keep airborne concentration low.

**Eye Protection:** eye protection such as protective glasses or goggles is recommended when this product is being used.

**Skin Protection:** the information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

**Protective Material Types:** we suggest that protective clothing be made from the following materials: cotton, rubber, PVC.

**Respirator:** if there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a Niosh/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## SECTION 9 - Physical & Chemical Properties

**Physical Description & Colour:** white crystalline powder.

**Odour:** no odour.

**Boiling Point:** decomposes before boiling at 100kPa.

**Freezing/Melting Point:** no specific data - solid at normal temperatures.

**Volatiles:** no specific data - expected to be low at 100°C.

**Vapour Pressure:** nil at normal ambient temperatures.

**Vapour Density:** not applicable.

**Specific Gravity:** no data - bulk density about 1.6.

**Water Solubility:** soluble.

**pH:** 10.4 (1%); 10.6 (10%)

**Volatility:** nil at normal ambient temperatures.

**Odour Threshold:** no data.

**Evaporation Rate:** not applicable.

**Coeff Oil/Water Distribution:** no data.

**Viscosity:** not applicable.

**Autoignition Temperature:** > 350 C (660 F).

## SECTION 10 - Stability & Reactivity

**Reactivity:** this product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** keep containers tightly closed. Containers should be kept dry.

**Incompatibilities:** water, acids, strong oxidizing agents, zinc, tin, aluminium and their alloys.

**Fire Decomposition:** combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form nitrogen and its' compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Sodium and silicon compounds. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerization:** this product will not undergo polymerization reactions.

## SECTION 11 - Toxicological Information

No adverse health effects are expected, if the product is handled in accordance with the Material Safety Data Sheet and the product label. Symptoms and effects may arise if the product is mishandled and overexposure occurs.

**Swallowed:** may cause irritation to mouth, throat and stomach with effects including mucous build up, irritation to the tongue and lips which may lead to nausea, vomiting and diarrhea.

**Eye(s):** may cause irritation to eyes, with effects including tearing, pain, stinging and blurred vision.

**Skin:** may cause irritation to the skin, with effects including redness and itchiness.

**Inhaled:** may cause irritation to the nose, throat and respiratory system with effects including sneezing and coughing.

**Chronic:** no significant long-term exposure effects, including carcinogenic, mutagenic, teratogenic and reproductive effects, have been reported.

**Target Organs:** no data to indicate any particular target organs.

## CLASSIFICATION OF HAZARDOUS INGREDIENTS

No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.

## SECTION 12 - Ecological Information

Readily biodegradable. Biodegradability > 99%/2d (OECD 302B) COD = 187 mg/L (Alpha 5220C).

## SECTION 13 - Disposal Considerations

Containers should be emptied as completely as practical before disposal. If possible, recycle product and containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site.

## SECTION 14 - Transport Information

ADG Code: this product is not classified as a Dangerous Good by ADG, IATA or IMSBC criteria. No special transport conditions are necessary unless required by other regulations.

### Road/Air/Sea Transport

**UN Number:** none allocated.  
**Proper Shipping Name:** none allocated.  
**Dangerous Goods Class:** none allocated.  
**Packing Group:** none allocated.  
**Label:** none allocated.  
**Harmonized Code:** 3824.90.90.

## SECTION 15 - Regulatory Information

**AICS:** all of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredient: Alkaline salts, is mentioned in the SUSMP.

## SECTION 16 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

### Acronyms

**REACH:** Regulation (EC) No. 1907/2006.  
**CAS Number:** Chemical Abstracts Service Registry Number.  
**Hazchem Code:** Emergency action code of numbers and letters that provide information to emergency services especially firefighters.  
**IARC:** International Agency for Research on Cancer.  
**NOS:** Not otherwise specified.  
**NTP:** National Toxicology Program (USA).  
**R-Phrase:** Risk Phrase.  
**SUSMP:** Standard for the Uniform Scheduling of Medicines & Poisons.  
**UN Number:** United Nations Number.

**This MSDS summarizes our best knowledge of the health and safety hazard information of the product, and how to safely handle and use the product in the workplace. Each user must review this MSDS in the context of how the product will be handled and used in the workplace.**

**If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Leasam Water Solutions so we can attempt to provide and/or obtain additional information to assist.**

**Our responsibility for products sold is subject to our standard terms and conditions of sale, a copy of which is sent to our clients and is also available on our website.**

**Please read all labels carefully before using product.**

[www.leasamwater.com](http://www.leasamwater.com)

