# Safety Data Sheet

**Issue Date:** JANUARY 15, 2014 **Revision Date:** MARCH 1, 2019 **Version 2**

## 1. IDENTIFICATION

**Product Identifier**
**Product Name** EfferSan™

**Other means of identification**
**SDS #** ACTIVON-001

**Registration Number(s)** EPA Registration Number: 66570-2

**Recommended use of the chemical and restrictions on use**
**Recommended Use** Multi-purpose disinfectant.

**Details of the supplier of the safety data sheet**
**Supplier Address**
Activon, Inc.
123 Commercial Drive
Beaver Dam, WI 53916

**Emergency Telephone Number**
**Company Phone Number** Phone: 1-800-841-0410
**Emergency Telephone (24 hr)** 1-800-222-1222

## 2. HAZARDS IDENTIFICATION

**Appearance** White tablet **Physical State** Solid **Odor** Mild chlorine

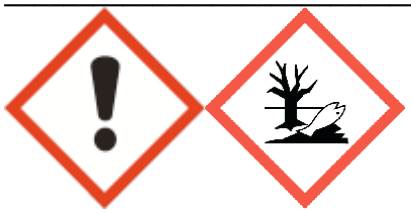
**Classification**

| | |
|---|---|
| Acute toxicity - Oral | Category 4 |
| Serious eye damage/eye irritation | Category 2 |
| Very toxic to aquatic life – with long lasting effects | Category 1 |
| Specific target organ toxicity (single exposure) | Category 3 |

**Hazards Not Otherwise Classified (HNOC)**
May be harmful in contact with skin

**Signal Word**
**Warning**

**Hazard Statements**
Harmful if swallowed
Causes serious eye irritation
May cause respiratory irritation
Very toxic to aquatic life with long lasting effects



**Precautionary Statements - Prevention**
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear eye/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

**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 INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a poison center or doctor/physician if you feel unwell
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth

**Precautionary Statements - Storage**
Store in a well-ventilated place. Keep container tightly closed
Store locked up

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

**Other Hazards**
Very toxic to aquatic life with long lasting effects

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|---|---|---|
| Dichloroisocyanuric acid, sodium salt | 2893-78-9 | 48.5-51.5 |
| Adipic acid | 124-04-9 | 21.3-22.7 |
| Sodium carbonate | 497-19-8 | 4.3-4.7 |

**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. Call a physician immediately.

**Skin Contact** Wash off immediately with soap and plenty of water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

**Inhalation** If symptoms occur, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician. If victim is unconscious, seek immediate medical attention.

**Ingestion** If exposed subject is fully conscious, give plenty of water to drink. Never give anything by mouth to an unconscious person. Do not induce vomiting. Immediately call a poison center or doctor/physician.

**Most important symptoms and effects**

**Symptoms** Acute Inhalation: Inhalation is irritating to the nose, throat, mucous membranes and respiratory tract. Symptoms may include coughing, wheezing, runny or bloody nose, or sneezing. High concentration may cause burns to the respiratory tract with possible lung edema (fluid in the lung), which can result in shortness of breath, wheezing, choking, chest pain, and impairment of lung function. In extreme situations, acute inhalation may cause permanent lung damage from this corrosive action on the lung. Chronic Inhalation: Repeated inhalation of high concentrations may cause impairment of lung function and, in extreme situations, permanent lung damage. Acute Skin: Direct contact can cause severe irritation and/or burns characterized by redness, swelling, and scab formation. Prolonged contact may cause destruction of the outer skin layer with impairment of the skin and site of contact to repair or regenerate itself. Chronic Skin: Repeated contact would cause similar effects to single exposures. Acute Eye: Direct contact or high dust concentrations may cause severe irritation and/or burns. This may result in impairment of vision and permanent eye damage. Acute Ingestion: Irritation and/or burns may occur from ingestion of this product. This may result in burns to the mouth, throat, and gastrointestinal tract, nausea, vomiting, diarrhea, abdominal pain, bleeding and/or tissue destruction. Conditions Medical Aggravated by Exposure: Asthma, emphysema, and other respiratory diseases.

**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**
Not determined.

**Hazardous Combustion Products** Toxic gases may be formed by fire. Carbon dioxide (CO2). Chlorine.

**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. Use water spray to keep fire-exposed containers cool.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Use personal protective equipment as required. Remove all sources of ignition.

**Environmental Precautions** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS. This material is heavier than water. This material is semi-soluble. Stop spill materials from entering water source if safe to do so. Check all water for available chlorine content and notify all downstream users of possible contamination.

**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** Clean up spill material using clean, dry equipment and place in a clean plastic bag or container free of oil, grease, or organic materials. Reseal original container and remove both to an outside well-ventilated area for later treatment and/or disposal. Wash down area and collect water for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed and store in a cool, dry and well-ventilated place. Do not store at elevated temperatures (above 140 deg. F). Protect from moisture. Keep away from heat. Store locked up. Shelf life >8 months.

**Incompatible Materials** Flammable liquids, combustible materials, oxidizable materials, oxidizing or chlorinating agents, organic materials, ammonia, ammonium salts, hydrated salts, non-ionic surface active agents, acids and bases.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Guidelines**

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|---|---|---|
| Adipic acid<br>124-04-9 | TWA: 5 mg/m$^3$ | - | - |

**Appropriate engineering controls**

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Chemical anti-splash safety goggles.

**Skin and Body Protection** Suitable protective clothing. Impervious gloves such as nitrile are recommended for operations which may result in prolonged or repeated skin contact. Impervious apron.

**Respiratory Protection** NIOSH Approved respirator.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash face, hands and any exposed skin thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

| | | | |
|---|---|---|---|
| **Physical State** | Solid | | |
| **Appearance** | White tablet | **Odor** | Mild chlorine |
| **Color** | White | **Odor Threshold** | Not determined |

| Property | Values | Remarks • Method |
|---|---|---|
| **pH** | 6.0 @ 25°C | (1% solution) |
| **Melting Point/Freezing Point** | 240-250 °C / 464-482 °F | |
| **Boiling Point/Boiling Range** | Not applicable | |
| **Flash Point** | Not flammable | |
| **Evaporation Rate** | Not applicable | |
| **Flammability (Solid, Gas)** | Not determined | |
| **Upper Flammability Limits** | Not determined | |
| **Lower Flammability Limit** | Not determined | |
| **Vapor Pressure** | None @ 25°C | |
| **Vapor Density** | Not applicable | |
| **Specific Gravity** | 1.5 - 1.7 | |
| **Water Solubility** | 25% | |
| **Solubility in other solvents** | Not determined | |
| **Partition Coefficient** | Not determined | |
| **Auto-ignition Temperature** | Not determined | |
| **Decomposition Temperature** | 76°C (170°F) | |
| **Kinematic Viscosity** | Not determined | |
| **Dynamic Viscosity** | Not determined | |
| **Explosive Properties** | Not determined | |
| **Oxidizing Properties** | Not determined | |
| **Bulk Density** | 0.9 - 1.0 g/cc | |

## 10. STABILITY AND REACTIVITY

**Reactivity**
Not reactive under normal conditions.

**Chemical Stability**
Stable under recommended storage conditions. May become unstable at temperatures above 76°C (170°F).

**Possibility of Hazardous Reactions**
None under normal processing.

**Conditions to Avoid**
See Sec. 7 Handling & Storage.

**Incompatible Materials**
Flammable liquids, combustible materials, oxidizable materials, oxidizing or chlorinating agents, organic materials, ammonia, ammonium salts, hydrated salts, non-ionic surface active agents, acids and bases.

**Hazardous Decomposition Products**
Toxic fumes may be released. Chlorine. Carbon dioxide ($CO_2$).

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information**

**Eye Contact** Causes serious eye irritation.

**Skin Contact** May be harmful in contact with skin.

**Inhalation** Avoid inhalation of dust.

**Ingestion** Harmful if swallowed.

**Component Information**

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|---|---|
| Dichloroisocyanuric acid, sodium salt 2893-78-9 | = 735 mg/kg ( Rat ) | > 2000 mg/kg ( Rabbit ) | > 50 mg/L ( Rat ) 1 h |
| Adipic acid 124-04-9 | > 11000 mg/kg ( Rat ) | - | > 31 mg/L ( Rat ) 1 h |
| Sodium Bicarbonate 144-55-8 | = 4220 mg/kg ( Rat ) | - | - |
| Sodium carbonate 497-19-8 | = 4090 mg/kg ( Rat ) | - | = 2300 mg/m$^3$ ( Rat ) 2 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** Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**STOT - single exposure** May cause respiratory irritation.

**Numerical measures of toxicity**
Not determined

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
Very toxic to aquatic life with long lasting effects.

**Component Information**

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|---|---|---|---|---|
| Dichloroisocyanuric acid, sodium salt 2893-78-9 | | 0.25 - 1: 96 h Lepomis macrochirus mg/L LC50 static 0.207 - 0.389: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.176 - 0.267: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.29: 96 h Oncorhynchus mykiss mg/L LC50 0.13 - 0.36: 96 h Oncorhynchus mykiss mg/L LC50 static | | 0.00018 - 0.00021: 48 h Daphnia magna mg/L EC50 0.093 - 0.16: 48 h Daphnia magna mg/L EC50 |
| Adipic acid 124-04-9 | 31.3: 72 h Desmodesmus subspicatus mg/L EC50 26.6: 96 h Desmodesmus subspicatus mg/L EC50 | 97: 96 h Pimephales promelas mg/L LC50 static 230: 96 h Leuciscus idus mg/L LC50 static | EC50 = 91.9 mg/L 17 h | 85.7: 48 h Daphnia magna mg/L EC50 |
| Sodium Bicarbonate 144-55-8 | 650: 120 h Nitzschia linearis mg/L EC50 | 8250 - 9000: 96 h Lepomis macrochirus mg/L LC50 static | | 2350: 48 h Daphnia magna mg/L EC50 |

| | | | | |
|---|---|---|---|---|
| Sodium carbonate<br>497-19-8 | 242: 120 h Nitzschia mg/L EC50 | 300: 96 h Lepomis macrochirus mg/L LC50 static 310 - 1220: 96 h Pimephales promelas mg/L LC50 static | | 265: 48 h Daphnia magna mg/L EC50 |

**Persistence/Degradability**
Not determined.

**Bioaccumulation**
Not determined.

**Mobility**

| Chemical Name | Partition Coefficient |
|---|---|
| Adipic acid<br>124-04-9 | 0.081 |

**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.

**California Hazardous Waste Status**

| Chemical Name | California Hazardous Waste Status |
|---|---|
| Dichloroisocyanuric acid, sodium salt<br>2893-78-9 | Ignitable |
| Sodium carbonate<br>497-19-8 | Corrosive |

## 14. TRANSPORT INFORMATION

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT** Not regulated

**IATA** Not regulated

**IMDG**
**Marine Pollutant** This material may meet the definition of a marine pollutant

## 15. REGULATORY INFORMATION

**International Inventories**

| Chemical Name | TSCA | DSL | NDSL | EINECS | ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|---|---|---|---|---|---|---|---|---|---|---|
| Dichloroisocyanuric acid, sodium salt | Present | X | | Present | | Present | X | Present | X | X |
| Adipic acid | Present | X | | Present | | Present | X | Present | X | X |
| Sodium carbonate | Present | X | | Present | | Present | X | Present | X | X |

**Legend:**

***TSCA*** *- United States Toxic Substances Control Act Section 8(b) Inventory*

***DSL/NDSL*** *- Canadian Domestic Substances List/Non-Domestic Substances List*

***EINECS/ELINCS*** *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

***ENCS*** *- Japan Existing and New Chemical Substances*

***IECSC*** *- China Inventory of Existing Chemical Substances*

***KECL*** *- Korean Existing and Evaluated Chemical Substances*

***PICCS*** *- Philippines Inventory of Chemicals and Chemical Substances*

***AICS*** *- Australian Inventory of Chemical Substances*

**US Federal Regulations**

**CERCLA**

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---|---|---|---|
| Adipic acid<br>124-04-9 | 5000 lb | | RQ 5000 lb final RQ<br>RQ 2270 kg final RQ |

**SARA 311/312 Hazard Categories**

| | |
|---|---|
| **Acute Health Hazard** | Yes |
| **Chronic Health Hazard** | No |
| **Fire Hazard** | Yes |
| **Sudden Release of Pressure Hazard** | No |
| **Reactive Hazard** | Yes |

**SARA 313**

Not determined

**CWA (Clean Water Act)**

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|---|---|---|---|
| Adipic acid | 5000 lb | | | X |

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|---|---|---|---|
| Dichloroisocyanuric acid, sodium salt<br>2893-78-9 | X | | X |
| Adipic acid<br>124-04-9 | X | X | X |

**EPA Pesticide Registration Number :** 66570-2

## 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** |
| | 3 | 1 | 2 | Not determined |

**Issue Date:** 15-Jan-2014
**Revision Date:** 20-May-2015
**Revision Note:** New format

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**