Safety Data Sheet

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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
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

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 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 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 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 2893-78-9	Ignitable
Sodium carbonate 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 124-04-9	5000 lb		RQ 5000 lb final RQ 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 2893-78-9	X		X
Adipic acid 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

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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