

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name: "Sterilene", a registered trademark by Design Water Technologies.

Date: September 1, 2008

Product Use: One time treatment and cleaning of wells and pipelines.

Formula: Formulation chemistry. Constituents of the actual formula are proprietary information.

DOT Information: Not regulated

TDG Information: Not regulated

HMIS Hazard Ratings

Health Hazard 3 Fire Hazard 1 Reactivity 2

Sara/Title 111 Harzard Categories

Immediate (Acute) Health: Yes

Reactive Hazard: Yes

Delayed (Cronic) Health: No

Sudden Release of pressure: No

Fire Hazard: Yes

Manufacturer: Design Water Technologies

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2. FIRST AID MEASURES

Eyes Immediately flush eyes with large amounts of water for 15 munutes, holding eyelids apart to ensure complete irrigation. Seek medical attention. NOTE: Dust or vapors may cause irritation and tearing.

Skin: Immediately brush off excess granular chemicals and flush with water. Remove contaminated clothing. Wash clothing before wearing. Get medical attention if an irritation persists. NOTE: Can cause skin irritaion. Not considered a sensitizing agent. On contact with moisture, in large concentrations, may hydrolyze to an acid base resulting in skin irritation or burns.

Ihhalation Seek fresh air. If breathing is difficult, have a trained person administer oxygen. If respiration stops, give mouth to mouth resuscitation. Get medical attention. NOTE: Breathing dust or fumes is expected to be the primary route of exposure. It may produce throat and respiratory tract irritation.

Ingestion If swallowed, drink large amounts of water. DO NOT induce vomiting. Avoid alcoholic beverages. Call a Doctor or a poison control center immediately. NOTE: Will result in burning of the mouth, throat, and esophagus, abdominal distress, and severe irritation, possible corrosion of the digestive tract.

Chronic Overexposure: Chronic exposure to large amounts of this compound has not been characterized and the irritating properties of this compound make such an exposure highly unlikely.

3. POTENTIAL HEALTH EFFECTS

Routes of Entry: Inhalation or Ingestion

Sensitizing Capability: None known

Target Organs: Eyes, skin, respiratory tract, Gastrointestinal tract

Reproductive Effects: None known

Irritancy: Severe, potentially by all exposure routes.

Cancer Information: Not classified as carcinogenic by NTP, IARC, OSHA, ACGIH, or NIOSH.

4. TOXICOLOGY DATA

Data from studies and scientific literature indicate the following,

Acute Oral	Rat	620 mg/kg	Slightly Toxic
Acute Dermal	Rabbit	11,000 mg/kg	Practically non-toxic
Eye Irritation	Rabbit 24 hr		Corrosive
Skin Irritation	Rabbit 24 hr		Corrosive
DOT Skin Corrosion	Rabbit 4 hr		Not corrosive

5. FIRE & EXPLOSION DATA

Flash Point: Not applicable

Auto Ignition Temperature: Not applicable

Flammable limits in air % by volume: Not applicable.

NOTE: If heated above 464° F (240° C), will decompose in the evolution of heat and dense noxious gases.

Extinguishing Media: Flood with large amounts of water. DO NOT USE ABC or dry chemical extinguishers since there is the potential for violent reaction. NOTE: If less than a 10% ratio of water to chemistry, may result in the production of nitrogen trichloride which can present an explosion hazard.

Fire Fighting Procedures: DO NOT let fire burn. Use self contained breathing apparatus (SCBA). Use full protective clothing. Use a 10% solution of sodium carbonate to decontaminate fire fighting equipment and apparel after the incident. DO NOT reclose broken containers, even to move to a disposal area. Maintain open containers to disperse any nitrogen trichloride that may form. Bulging container require extreme care.

If in contact with other combustible materials, this product will increase the burn rate of that material. When ignited, will burn with the evolution of noxious chlorine containing gases.

After fire is extinguished, check for wet or damp material. Any spilled material from burned or broken containers should be assumed contaminated. Neutralize to a non-oxidizing material for disposal. Do not close broken or partially opened containers, even for movement. Leave open to disperse any nitrogen trichloride that may form.

Sensitivity to mechanical impact: Not sensitive

Sensitivity to static discharge: Not sensitive

6. SPECIAL PROTECTION

Eyes: Chemical safety goggles (ANSI Z87.1)

Skin: Chemical resistant gloves such as vinyl, rubber, or neoprene.

Ventilation requirements: General room ventilation.

Special equipment: NIOSH/MSHA approved respirator when air borne contaminants occur. Eye wash facilities should be in close proximity. A respiratory protection program that meets 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever conditions warrant a respirator.

7. PHYSICAL DATA

Appearance: White chystalline with a slight chlorine odor

Max solubility in water: 28% or 2.3 lbs (1057.8 gr)/gal water

Melting point: 464-480° F (240-250° C)

Thermal Decomposition: 464-480° F (240-250° C)

pH: 6-7 in 1% aqueous solution

Loose bulk density: 56-60 lbs/cu. ft.

Odor threshold: No data

Freezing point: Not determined.

8. STABILITY & REACTIVITY DATA

Incompatibility: Ammonia, urea, nitrogen containing compounds, inorganic reducing compounds like floor sweeping compounds, calcium hypochlorite, alkalis, or acids.

NOTE: DO NOT mix in concentrated solutions or slurries greater than 10% (0.8 lbs (362.9 gr)/gal water).

NOTE: DO NOT mix water into granules. ALWAYS mix granules into water.

Chemical Stability: Stable

Hazardous Polymerization: Will not occur

9. HANDLING & STORAGE

Storage:

- Keep material dry and in a dry area.
- Store in original containers and keep containers tightly closed.
- DO NOT exceed temperatures greater than 125° F (52° C) for 24 hours.

Handling:

- Wear goggles or a face shield and rubber gloves when mixing or handling.
- Avoid breathing airborne particulates. Wear respiratory protection when exposure is possible
- Do NOT get into eyes or on skin or clothing. Wash thoroughly with soap and water when handling. Wash any contaminated clothing before reuse.

HANDLING & STORAGE, continued

Mixing and Handling Instructions

- Mix only with water. Always mix granules into water, NEVER water into granules.
- Use only clean and dry utensils.
- Do not use any dispersion device containing any remnants of any other chemistry as may cause a violent reaction (fire or explosion)
- Contamination with moisture or other chemicals may start a chemical reaction with heat, liberation of hazardous gases.
- Vapor space in a closed container may contain a slight amount of chlorine gas from decomposition of the product. This may cause burning of the eyes with tearing; burning of the nose and mouth causing irritation of the respiratory tract.

Directions for usage: It is a violation of Federal Law to use this product in any manner inconsistent with labeling. This product is designed for single dosages for cleaning wells and pipelines. DO NOT use for constant feed applications for potable applications.

10. ACCIDENTAL RELEASE MEASURES

IF material is released or spilled:

- Contain granular spilled material. Clean up as soon as possible.
- DO NOT add water to spilled granular material.
- Sweep and scoop all spilled granular material into containers.
- DO NOT use floor sweeping compounds to clean spills as a reaction may occur.
- DO NOT close containers that contain wet materials as nitrogen tichloride gas may form.
- Toxic to fish and aquatic organism. DO NOT discharge into lakes, streams, or ponds unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES) permit.
- Do not discharge into sewer systems without notifying the sewage treatment plant authority.

Container disposal on plastic containers

- Triple rinse containers with large amounts of water.
- Recycle containers.

11. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and odor	White crystalline, solid with a slight chlorine odor
Density	56-60 lbs. (25,400-27,215 gr)/cubic foot
Volatiles % by weight	Not determined
Boiling Point	Not determined
Melting Point	464-480° F (240-250° C) Thermal decomposition
Freezing Point	Not determined
Max Solubility in water	28 grams in 100 grams water or 2.3 lbs/gallon of water @ 77° F (25° C)
pH	6-6.5 at 1% solution @ 77° F (25° C)
VOC	Not determined
Chemical Stability	Stable
Reacts with	• Water • Acids • Alkalis
Hazardous polymerization	Will not occur
Hazardous decomposition	chlorine gases can be produced

12. TOXICOLOGICAL INFORMATION

51580-86-0

1,3,5-Triazine-2,4,6 (1H, 3H, 5H)-trione, 1,3

This material is a slight oxidizing agent. The preparation of concentrated solutions is NOT recommended. Avoid contact with easily oxidizable organic material, ammonia, urea, or nitrogen containing compounds; inorganic reducing compounds; floor sweeping compounds; calcium hypochlorite; alkalis.

13. ECOLOGICAL INFORMATION

Toxicity This material has been determined to be highly toxic to freshwater fish and invertebrates in acute toxicity tests.

Persistence This material is readily biodegradable.

Bioaccumulation This material is believed to be unlikely to bioaccumulate.

14. TRANSPORTATION INFORMATION

DOT Information Not regulated.

15. REGULATORY INFORMATION

DOT Proper Shipping:

No oxidizer, hazardous, or corrosive labels are required by the US Dept. of Transportation (DOT) 49 CFR 172.101, Hazardous Material Table.

TSCA

All components of this product that are required to be on the TSCA. This product contains a hydrated form of a component of the Toxic Substances Control Act (TSCA) Inventory. Hydrated materials are NOT included on the Inventory of Chemical Substances under the authority of TSCA. They are reported as the anhydrous version of the compound listed under a different CAS number of the TSCA Inventory.

SARA/TITLE III-CERCLA List:

If the word "Yes" appears next to any category, this product may be reportable by you under the requirements of 40CFR 370. Consult those regulations for details.

Immediate (Acute) Health	YES	Delayed (Chronic) Health	NO
Reactive Hazard	NO	Sudden Release of Pressure	NO
Fire Hazard	YES		

HMIS Hazard Ratings

Health Hazard	3	Fire Hazard	1	Reactivity	1
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International Regulations Consult the regulations of the importing country.

Canada WHMIS Hazard Class: C, D2B

California Proposition 65

This product does not contain any chemicals currently on the California list of known carcinogens and reproductive toxins.

16. OTHER INFORMATION

For any additional information or non-emergency health, safety, or environmental information, call #952-474-4657 or write to,

Design Water Technologies
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