

FREMONT

WATER SOLUTIONS

FREMONT 9917 Closed System Treatment

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision date: 07/14/2016 Supersedes: 02/01/2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : FREMONT 9917 Closed System Treatment
Product form : Mixture
Other means of identification : Oxidizer

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Closed System Treatment

1.3. Details of the supplier of the safety data sheet

FREMONT INDUSTRIES, INC.
4400 Valley Industrial Blvd. N.
P.O. Box 67
Shakopee, MN 55379-0067

1.4. Emergency telephone number

Emergency number : (952) 445-4121
CHEMTREC: (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Irrit. 2 H315
Eye Irrit. 2A H319
Repr. 1B H360

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US)



GHS07

GHS08

Signal word (GHS-US)

: **Danger**

Hazard statements (GHS-US)

: H315 - Causes skin irritation
H319 - Causes serious eye irritation
H360 - May damage fertility or the unborn child

Precautionary statements (GHS-US)

: P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P264 - Wash hands, forearms and face, clothing thoroughly after handling
P280 - Wear eye protection, face protection, protective clothing, protective gloves
P302+P352 - If on skin: Wash with plenty of water spray
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention
P321 - Specific treatment (see first aid on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P405 - Store locked up
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

FREMONT 9917 Closed System Treatment

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Sodium nitrite	(CAS No) 7632-00-0	5 - 10
Potassium Carbonate	(CAS No) 584-08-7	1 - 5
Boric acid (HBO ₂), sodium salt, tetrahydrate	(CAS No) 10555-76-7	1 - 5
Potassium hydroxide	(CAS No) 1310-58-3	0.5 - 1.5
1,2,3-Benzotriazole	(CAS No) 95-14-7	0.1 - 1
Tetrasodium EDTA	(CAS No) 64-02-8	0.1 - 1

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
- First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.
- First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.
- First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. If pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.
- First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes skin irritation. Causes serious eye irritation. May damage fertility. May damage the unborn child.
- Symptoms/injuries after inhalation : May cause respiratory irritation.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes serious eye irritation.
- Symptoms/injuries after ingestion : May cause gastrointestinal irritation.
- Chronic symptoms : May damage fertility. May damage the unborn child.

4.3. Indication of any immediate medical attention and special treatment needed

If conscious, give large amounts of water, citrus juice, or 1:1 vinegar water solution.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Water spray. Foam. Dry powder. Dry chemical. Alcohol-resistant foam.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not flammable.
- Explosion hazard : Product is not explosive.
- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters

- Firefighting instructions : Use cold water spray to cool fire-exposed containers to minimize risk of rupture. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment. Prevent human exposure to fire, fumes, smoke and products of combustion.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

- Protective equipment : Wear Protective equipment as described in Section 8.
- Emergency procedures : Evacuate unnecessary personnel.

FREMONT 9917 Closed System Treatment

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Sweep or shovel spills into appropriate container for disposal.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Neutralize residue with weak acid and flush to drain with plenty of water. Product may create slip hazard. Wash spill area thoroughly with plenty of soap and water. If slipperiness remains, apply additional dry-sweeping compound. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Provide good ventilation in process area to prevent formation of vapour. Do not breathe vapours, mist. Avoid spilling the product, as this might cause danger of slippage and falls. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

Storage temperature : Room Temperature

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Potassium hydroxide (1310-58-3)	
ACGIH Ceiling (mg/m ³)	2 mg/m ³
OSHA PEL (Ceiling) (mg/m ³)	2 mg/m ³ vacated
Sodium nitrite (7632-00-0)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established
Boric acid (HBO₂), sodium salt, tetrahydrate (10555-76-7)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established
1,2,3-Benzotriazole (95-14-7)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established
Tetrasodium EDTA (64-02-8)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established

8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Protective clothing. Safety glasses. Gloves.



Hand protection

: Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Change contaminated gloves immediately. Gloves should be classified under Standard EN 374 or ASTM F1296. Suitable gloves for this specific application can be recommended by the glove supplier. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.

FREMONT 9917 Closed System Treatment

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Eye protection	: Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.
Skin and body protection	: Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.
Respiratory protection	: Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Yellow/amber liquid.
Color	: Yellow/amber.
Odor	: None.
Odor Threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: Not Established
Melting point	: Not Established
Freezing point	: No data available
Boiling point	: ≈ 100 °C (212°F)
Flash point	: Nonflammable (T.C.C.)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: Not Established
Relative vapour density at 20 °C	: Not Established
Relative density	: 1.11 (H2O=1)
Solubility	: Complete solubility in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Contact with certain metals.

10.5. Incompatible materials

Chlorates. Hyposulfites. Permanganate. Reducing agents. Ammonium compounds.

10.6. Hazardous decomposition products

Nitrogen oxides. Carbon oxides (CO, CO2). Sulfur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Not classified.

Potassium hydroxide (1310-58-3)	
ATE CLP (oral)	500.000 mg/kg bodyweight
Sodium nitrite (7632-00-0)	
LD50 oral rat	85 mg/kg (Source: IUCLID)
LC50 inhalation rat (mg/l)	5.5 mg/l/4h (Source: IUCLID)

FREMONT 9917 Closed System Treatment

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Sodium nitrite (7632-00-0)	
ATE CLP (oral)	85.000 mg/kg bodyweight
ATE CLP (vapours)	5.500 mg/l/4h
ATE CLP (dust,mist)	5.500 mg/l/4h
Potassium Carbonate (584-08-7)	
LD50 oral rat	1870 mg/kg
1,2,3-Benzotriazole (95-14-7)	
LD50 oral rat	500 - 965 mg/kg
LC50 inhalation rat (mg/l)	1910 mg/m ³ 3 h
Tetrasodium EDTA (64-02-8)	
LD50 oral rat	1658 mg/kg
Sodium hydroxide (1310-73-2)	
LD50 dermal rabbit	1350 mg/kg
Sodium tetraborate decahydrate (1303-96-4)	
LD50 oral rat	5.66 g/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 2 g/m ³ 4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: May damage fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: May cause gastrointestinal irritation.
Chronic symptoms	: May damage fertility. May damage the unborn child.

SECTION 12: Ecological information

12.1. Toxicity

Sodium nitrite (7632-00-0)	
LC50 fishes 1	0.19 mg/l 96 Hr Oncorhynchus mykiss [flow-through] (juvenile)
LC50 fish 2	0.092 - 0.13 mg/l 96 Hr Oncorhynchus mykiss [flow-through]

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

FREMONT 9917 Closed System Treatment

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

FREMONT 9917 Closed System Treatment	
All components of this product are listed on the TSCA Inventory or are exempt	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
Potassium hydroxide (1310-58-3)	
Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	1000
Section 313	Not Listed on US SARA Section 313
Sodium nitrite (7632-00-0)	
Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	100 lbs
Section 313	Listed on US SARA Section 313
Sodium hydroxide (1310-73-2)	
Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	1000 lbs
Section 313	Not Listed on US SARA Section 313

15.2. International regulations

No additional information available

15.2.2. National regulations

15.3. US State regulations

Potassium hydroxide (1310-58-3)
State or local regulations
RTK - U.S. - Massachusetts - Right To Know List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Sodium nitrite (7632-00-0)
State or local regulations
RTK - U.S. - Massachusetts - Right To Know List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
1,2,3-Benzotriazole (95-14-7)
State or local regulations
RTK - U.S. - Massachusetts - Right To Know List

FREMONT 9917 Closed System Treatment

Safety Data Sheet

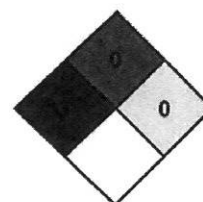
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Sodium hydroxide (1310-73-2)
State or local regulations
RTK - U.S. - Massachusetts - Right To Know List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List RTK - U.S. - Pennsylvania - RTK (Right to Know) List
Sodium tetraborate decahydrate (1303-96-4)
State or local regulations
RTK - U.S. - Massachusetts - Right To Know List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List RTK - U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Indication of changes : Appearance & Color were updated in Section 9.
Revision date : 07/14/2016
Other information : Author: BB.

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA fire hazard : 0 - Materials that will not burn.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 3
Flammability : 0
Physical : 0
Personal Protection : Splash goggles, Gloves, Synthetic apron, Dust & vapor respirator

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