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FREMONT 9912 Closed System Treatment

Safety Data Sheet

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Revision date: 02/01/2015 Supersedes: 03/30/2007

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

1.1. Product identifier

Trade name : Fremont 9912 Closed System Treatment

Product form : Mixture

Other means of identification : Base

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 Corr. 1A H314
Skin Sens. 1 H317
Repr. 2 H361
STOT RE 2 H373

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS05 GHS07 GHS08

Signal word (GHS-US) : **Danger**

Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe mist, vapours
P261 - Avoid breathing mist, vapours
P264 - Wash hands, forearms and face thoroughly after handling
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear eye protection, face shield, protective clothing, protective gloves
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P302+P352 - If on skin: Wash with plenty of soap and water
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
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
P310 - Immediately call a doctor, a POISON CENTER
P314 - Get medical advice/attention if you feel unwell
P321 - Specific treatment (see first aid instructions on this label)
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention

P362+P364 - Take off contaminated clothing and wash it before reuse
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Potassium hydroxide	(CAS No) 1310-58-3	3 - 7
Phosphorous acid [P(OH)3]	(CAS No) 10294-56-1	3 - 7
Acetic acid, hydroxyphosphono-	(CAS No) 23783-26-8	1 - 5
Boric acid (HBO2), sodium salt, tetrahydrate	(CAS No) 10555-76-7	1 - 5
Phosphoric acid	(CAS No) 7664-38-2	0.25

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 difficult, supply oxygen. If breathing has stopped, give artificial respiration.

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. Get medical attention immediately.

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. Get medical attention immediately. 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 severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Highly corrosive to skin. May cause an allergic skin reaction.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : May cause gastrointestinal irritation.

Chronic symptoms : May cause an allergic skin reaction. Suspected of damaging fertility. Suspected of damaging the unborn child. . May cause damage to organs through prolonged or repeated exposure.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Foam. Dry chemical. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Product is not flammable.

Explosion hazard : Product is not explosive.

Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. 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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Keep upwind. Evacuate area. Ventilate area. 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.

6.1.2. For emergency responders

Protective equipment : Self-contained breathing apparatus. Wear suitable protective clothing, gloves and eye or face protection.

6.2. Environmental precautions

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

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

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. Wear personal protective equipment. Do not breathe vapours. Provide good ventilation in process area to prevent formation of vapor. 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 : Keep container tightly closed in a cool, dry, and well-ventilated place.

Storage temperature : room temperature

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phosphoric acid (7664-38-2)	
ACGIH TWA (mg/m³)	1
ACGIH STEL (mg/m³)	3
OSHA PEL (TWA) (mg/m³)	1
OSHA PEL (STEL) (mg/m³)	3

Potassium hydroxide (1310-58-3)	
ACGIH Ceiling (mg/m³)	2
OSHA PEL (Ceiling) (mg/m³)	2 mg/m³ vacated

Phosphorous acid [P(OH)3] (10294-56-1)	
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

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	:	Gloves. Face shield. Protective clothing.

Hand protection	:	Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. . Change contaminated gloves immediately. Suitable gloves for this specific application can be recommended by the glove supplier.
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. Chemical goggles and face shield must be worn in combination.
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
Color	:	Amber.
Odor	:	Slight burnt sugar odor.
Odor Threshold	:	No data available
pH	:	10.5 - 11
Relative evaporation rate (butylacetate=1)	:	Unknown
Melting point	:	No data available
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	:	Unknown
Relative vapour density at 20 °C	:	Unknown
Relative density	:	1.06 (H2O = 1)
Solubility	:	Water: 100 %
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	:	Unknown

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids.

10.6. Hazardous decomposition products

Oxides of carbon and phosphorus.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Acetic acid, hydroxyphosphono- (23783-26-8)	
ATE CLP (oral)	500.000 mg/kg bodyweight

Phosphoric acid (7664-38-2)	
LD50 dermal rabbit	2740 mg/kg
LC50 inhalation rat (mg/l)	> 850 mg/m³ 1h

Potassium hydroxide (1310-58-3)	
ATE CLP (oral)	500.000 mg/kg bodyweight

Phosphorous acid [P(OH)3] (10294-56-1)	
ATE CLP (oral)	500.000 mg/kg bodyweight

Potassium Carbonate (584-08-7)	
LD50 oral rat	1870 mg/kg

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: 10.5 - 11

Serious eye damage/irritation : Causes severe eye damage
pH: 10.5 - 11

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Highly corrosive to skin. May cause an allergic skin reaction.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : May cause gastrointestinal irritation.

Chronic symptoms : May cause an allergic skin reaction. Suspected of damaging fertility. Suspected of damaging the unborn child. . May cause damage to organs through prolonged or repeated exposure.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

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 of in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

Transport document description : UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (POTASSIUM HYDROXIDE), 8, PGII

UN-No.(DOT) : 3266

DOT NA no. UN3266

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Corrosive liquid, basic, inorganic, n.o.s.
(Potassium hydroxide)

Department of Transportation (DOT) Hazard Classes : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive

DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : II - Medium Danger

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

DOT Vessel Stowage Location : B - (i) The material may be stowed ''on deck'' or ''under deck'' on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ''On deck only'' on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

DOT Vessel Stowage Other : 40 - Stow ''clear of living quarters'',52 - Stow ''separated from'' acids

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L

SECTION 15: Regulatory information

15.1. US Federal regulations

Fremont 9912 Closed System Treatment	
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard

Phosphoric acid (7664-38-2)	
Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	5000 lb
Section 313	Not Listed on US SARA Section 313

Potassium hydroxide (1310-58-3)	
Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	1000 lb
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

Phosphoric acid (7664-38-2)
State or local regulations
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List RTK - U.S. - Massachusetts - Right To Know List RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

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

SECTION 16: Other information

Indication of changes : Revision 1.0: New SDS Created.

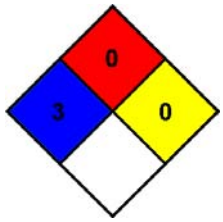
Revision date : 02/05/2015

Other information : Author: SO.

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 :

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