

## FREMONT BWT 4181 Boiler Water Treatment

### Safety Data Sheet

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

Revision date: 02/01/2015      Supersedes: 12/20/2010

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

##### 1.1. Product identifier

Trade name : FREMONT BWT 4181 Boiler Water Treatment

Product form : Mixture

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

Use of the substance/mixture : Boiler water 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

###### Classification (GHS-US)

Skin Corr. 1A H314

##### 2.2. Label elements

###### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS05

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

Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage

Precautionary statements (GHS-US) :

- P260 - Do not breathe mists
- P264 - Wash skin thoroughly after handling
- P280 - Wear eye protection, face protection, protective clothing, protective gloves
- P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
- P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position 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
- P310 - Immediately call a POISON CENTER or doctor/physician
- P321 - Specific treatment (see first aid instructions on this label)
- P363 - Wash contaminated clothing before reuse
- P405 - Store locked up
- P501 - Dispose of contents/container to licensed waste handling facility

##### 2.3. Other hazards

No additional information available

##### 2.4. Unknown acute toxicity (GHS-US)

No data available

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%
Potassium hydroxide	(CAS No) 1310-58-3	10 - 30
Potassium carbonate	(CAS No) 584-08-7	5 - 10

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : IF ON SKIN: Immediately rinse with plenty of water (for at least 15 minutes). Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Get medical advice/attention.
- First-aid measures after ingestion : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

- Symptoms/injuries : Causes severe skin burns and eye damage.
- Symptoms/injuries after inhalation : May cause headache, nausea and irritation of respiratory tract.
- Symptoms/injuries after skin contact : Highly corrosive to skin.
- Symptoms/injuries after eye contact : Causes serious eye burns.
- Symptoms/injuries after ingestion : Severe irritation or burns to the mouth, throat, esophagus, and stomach. Possible esophageal perforation.

#### 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. Carbon dioxide. Alcohol-resistant foam. Dry powder.

#### 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.
- 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 : Evacuate area. Keep upwind. 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 : 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. 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.
- Methods for cleaning up : 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).

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### 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. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe mists. Keep away from sources of ignition - No smoking.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep container closed when not in use.

Incompatible products : Strong oxidizers. Strong acids.

### 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 <sup>3</sup> )	2 mg/m <sup>3</sup>
OSHA PEL (Ceiling) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> vacated

### 8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Protective goggles. Face shield. Protective clothing. Respiratory protection of the dependent type.



Hand protection : Protective gloves made of rubber.

Eye protection : Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection : Corrosionproof clothing.

Respiratory protection : An approved organic vapor respirator/supplied air or self-contained breathing apparatus must be used when vapor concentration exceeds applicable exposure limits.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Brown.

Odor : Odorless.

Odor Threshold : No data available

pH : 12.5 - 14

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : 100 °C

Flash point : No data available

Self ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapor pressure : No data available

Relative vapor density at 20 °C : No data available

Relative density : 1.19 - 1.23

Solubility : Complete solubility in water.

Log Pow : No data available

Log Kow : No data available

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Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing 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

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Sparks. Heat. Open flame.

### 10.5. Incompatible materials

Oxidizing agent. Strong acids. Soft metals (aluminum, copper, brass).

### 10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon oxides (CO, CO<sub>2</sub>). Sulfur oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

#### Potassium hydroxide (1310-58-3)

LD50 oral rat	214 mg/kg
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Skin corrosion/irritation : Causes severe skin burns and eye damage.  
pH: 12.5 - 14

Serious eye damage/irritation : Not classified  
pH: 12.5 - 14

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

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 headache, nausea and irritation of respiratory tract.

Symptoms/injuries after skin contact : Highly corrosive to skin.

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

Symptoms/injuries after ingestion : Severe irritation or burns to the mouth, throat, esophagus, and stomach. Possible esophageal perforation.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : No data available.

### 12.2. Persistence and degradability

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Persistence and degradability	No data available.
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### 12.3. Bioaccumulative potential

No additional information available

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### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other adverse effects : No data 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.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

Transport document description : UN1760, CORROSIVE LIQUIDS, N.O.S. (POTASSIUM HYDROXIDE), 8, PGII

UN-No.(DOT) : 1760

DOT NA no. UN1760

### 14.2. UN proper shipping name

DOT Proper Shipping Name : Corrosive liquids, 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 substances



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 : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

DOT Vessel Stowage Other : 52 - Stow "separated from" acids

### Air transport

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

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

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### FREMONT BWT 4181 Boiler Water Treatment

All chemical substances in this product are listed in the EPA (Environmental Protection Agency) TSCA (Toxic Substances Control Act) Inventory

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
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#### Potassium hydroxide (1310-58-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on SARA Section 313 (Specific toxic chemical listings)

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	1000 lb
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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
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#### Potassium carbonate (584-08-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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### 15.2. International regulations

#### CANADA

**Potassium hydroxide (1310-58-3)**

Listed on the Canadian DSL (Domestic Substances List) inventory.

**Potassium carbonate (584-08-7)**

Listed on the Canadian DSL (Domestic Substances List) inventory.

No additional information available

### 15.2.2. National regulations

**Potassium hydroxide (1310-58-3)**

Listed on the AICS (the Australian Inventory of Chemical Substances)  
Listed on Inventory of Existing Chemical Substances (IECSC)  
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.  
Listed on KECI (Chemical Inventory of Korea)

**Potassium carbonate (584-08-7)**

Listed on the AICS (the Australian Inventory of Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.  
Listed on the Korean ECL (Existing Chemical List) inventory.  
Listed on New Zealand - Inventory of Chemicals (NZIoC)  
Listed on Inventory of Chemicals and Chemical Substances (PICCS)  
Listed on Inventory of Existing Chemical Substances (IECSC)

### 15.3. US State regulations

**Potassium hydroxide (1310-58-3)**

U.S. - Massachusetts - Right To Know List  
U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

## SECTION 16: Other information

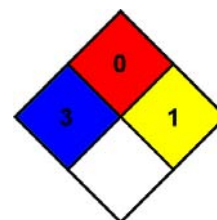
Indication of changes : Revision 1.0 - (October 2013) - New SDS Created.

Other information : Author. ERM.

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 : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



### HMIS III Rating

Health : 3

Flammability : 0

Physical : 1

Personal Protection : Wear suitable protective clothing, gloves and eye/face protection.

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