



SAFETY DATA SHEET

Revision Date 04/29/2015

REVISION NUMBER: 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name BFW-3100S, Boiler Water Treatment

Other means of identification

Product code 119158

UN/ID No. 1759

Synonyms NONE

Recommended use of the chemical and restrictions on use

Recommended Use Water treatment chemical.

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

See Distributor information.

Importer

Rochester Midland Limited
5353 John Lucas Drive
Suite 103
Burlington, ON L7L 6G5
Canada

Distributor

Rochester Midland Corporation
155 Paragon Drive
Rochester, New York 14624 USA

Emergency telephone number

EMERGENCY TELEPHONE

INFOTRAC: 1-800-535-5053
OUTSIDE U.S.: +1-352-323-3500
CANUTEC: 613-996-6666

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is considered hazardous by the WHMIS 2015 Hazardous Products Regulation.

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 3
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Corrosive to metals	Category 1

Label elements

Emergency Overview

DANGER

Hazard statements

Harmful if swallowed
 Toxic in contact with skin
 Causes severe skin burns and eye damage
 May be corrosive to metals

**Appearance** Tan Light Brown**Physical state** Solid**Odor** Mild**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Wear protective gloves/protective clothing/eye protection/face protection
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep only in original container
 Avoid release to the environment

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
 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
 Call a POISON CENTER or doctor/physician if you feel unwell
 Wash contaminated clothing before reuse
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a POISON CENTER or doctor/physician
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 Do NOT induce vomiting
 Absorb spillage to prevent material damage

Precautionary Statements - Storage

Store locked up
 Store in corrosive resistant container

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Contact with acids liberates toxic gas

Other Information

- Harmful to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT COMPOSITION	CAS No.	%	TRADE SECRET
Sodium Hydroxide	1310-73-2	10 - 15	*
Morpholine	110-91-8	1 - 5	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice	Immediately call a POISON CENTER or doctor/physician.
Eye contact	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.
Skin contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Call a POISON CENTER or doctor/physician if you feel unwell.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
Ingestion	IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Dry chemical, CO₂, water spray or alcohol-resistant foam. Use water spray or fog; do not use straight streams.

Small Fire NOTE: Solid product will melt and combustion may occur when exposed to fire.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

Vapors may form explosive mixtures with air. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Contact with metals may evolve flammable hydrogen gas.

Explosion data

Sensitivity to Mechanical Impact NONE.

Sensitivity to Static Discharge NONE.

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.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions Remove all sources of ignition. Ensure adequate ventilation, especially in confined areas. Ventilate affected area. Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Avoid release to the environment. Dispose of contents/container to an approved waste disposal plant. Keep out of drains, sewers, streams, or other bodies of water.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. When using do not eat, drink or smoke. Avoid contact with eyes, skin and clothing. Do not breathe dusts. Wash thoroughly after handling. Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep/store only in original container. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Do not reuse container. Do not use iron, copper, or aluminum containers or equipment. Store in accordance with local regulations. Store in dry location away from heat and direct sunlight. Store in a cool, dry location away from incompatible materials. Keep away from food, drink and animal feeding stuffs. Do not store near oxidizing agents. Store away from acids. Keep container tightly closed.

Incompatible materials Oxidizing materials. Acids. Aluminum. Copper. Brass. Cast bronze. Nitrites.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

PRODUCT COMPOSITION	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Hydroxide 1310-73-2	Ceiling: 2 mg/m ³	(vacated) Ceiling: 2 mg/m ³ TWA: 2 mg/m ³	10 mg/m ³
Morpholine 110-91-8	TWA: 20 ppm	(vacated) STEL: 30 ppm (vacated) STEL: 105 mg/m ³ S* (vacated) S* (vacated) TWA: 20 ppm (vacated) TWA: 70 mg/m ³ TWA: 20 ppm TWA: 70 mg/m ³	1400 ppm

Appropriate engineering controls

ENGINEERING CONTROLS Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Chemical resistant gloves are recommended to minimize skin contact. Appropriate protective clothing as needed to prevent skin contact. It is the responsibility of the end user of this product to determine level of PPE required that is consistent with safe use of this product.

RESPIRATORY PROTECTION If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid	Odor	Mild
Appearance	Tan Light Brown	Odor threshold	No information available
Color	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	11.5	(1% solution)
Melting point/freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	No information available	
Water solubility	COMPLETE	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
VOC (EPA METH.24) (G/L):	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

REACTIVITY

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

CONDITIONS TO AVOID

Extremes of temperature and direct sunlight.

Incompatible materials

Oxidizing materials. Acids. Aluminum. Copper. Brass. Cast bronze. Nitrites.

Hazardous Decomposition Products

Carbon dioxide (CO₂). Carbon Monoxide. Oxides of Sodium. Nitrogen oxides (NO_x). Sulfur dioxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Harmful if swallowed. Causes severe skin burns and eye damage.
Inhalation	Causes burns.
Eye contact	Corrosive to the eyes and may cause severe damage including blindness.
Skin contact	Toxic in contact with skin. Causes burns.
Ingestion	Harmful if swallowed. Causes burns.

PRODUCT COMPOSITION	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Hydroxide 1310-73-2	-	= 1350 mg/kg (Rabbit)	-
Morpholine 110-91-8	= 1050 mg/kg (Rat)	= 310 mg/kg (Rabbit)	= 8000 ppm (Rat) 8 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

PRODUCT COMPOSITION	ACGIH	IARC	NTP	OSHA
Morpholine 110-91-8	-	Group 3	-	-

Reproductive Toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
OTHER ADVERSE EFFECTS: Not applicable.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Harmful to aquatic life.

PRODUCT COMPOSITION	Algae/aquatic plants	Fish	Crustacea
Sodium Hydroxide 1310-73-2	-	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-
Morpholine 110-91-8	28: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	350: 96 h Lepomis macrochirus mg/L LC50 static 375 - 460: 96 h Oncorhynchus mykiss mg/L LC50 1000: 96 h Brachydanio rerio mg/L LC50 static	-

Persistence and degradability

No information available.

Bioaccumulation

Bioaccumulative potential.

PRODUCT COMPOSITION	Partition coefficient
Morpholine 110-91-8	-2.55

Other adverse effects No information available

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 Do not reuse container.

14. TRANSPORT INFORMATION

DEPT. OF TRANSPORTATION

UN/ID No. 1759
Proper shipping name CORROSIVE SOLID, N.O.S. (SODIUM HYDROXIDE, MORPHOLINE)
Hazard Class 8
Subsidiary class II
Description 1 Kilogram (2.2 Pounds) and Less may be Classed as LTD. QTY.

TDG

UN/ID No. 1759
Proper shipping name CORROSIVE SOLID, N.O.S. (SODIUM HYDROXIDE, MORPHOLINE)
Hazard Class 8
Packing Group II
Description 1 Kilogram (2.2 Pounds) and Less may be Classed as LTD. QTY.

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - 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

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

ACUTE HEALTH HAZARD	YES
CHRONIC HEALTH HAZARD	No
FIRE HAZARD	No
Sudden release of pressure hazard	No
REACTIVE HAZARD	YES

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

PRODUCT COMPOSITION	Hazardous Substances RQs (in LBS)	U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs
Sodium Hydroxide 1310-73-2	1000	

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

PRODUCT COMPOSITION	NJRTK:	MARTK:	PARTK:
Sodium Hydroxide 1310-73-2	1706	Listed	Listed
Morpholine 110-91-8	1315	Listed	Listed

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION**NFPA**

Health hazards 3

Flammability 1

Instability 0

Physical and Chemical Properties -

HMIS

Health hazards 3

Flammability 1

Physical hazards 0

Personal protection X

Prepared By

Revision Date

Revision Note

EH&S DEPARTMENT

04/29/2015

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 SDS *****