



# SAFETY DATA SHEET

Revision Date 05/03/2017

REVISION NUMBER: 4

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

### Product identifier

**Product name** BFW-85

### Other means of identification

**Product code** 107280

**UN/ID No.** 2357

**Synonyms** NONE

### Recommended use of the chemical and restrictions on use

**Recommended Use** Water treatment chemical. Corrosion inhibitor.

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

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

#### **Importer**

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

### 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

#### **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.

Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 2
Reproductive Toxicity	Category 2
Flammable liquids	Category 3

### Label elements

#### **Emergency Overview**

**DANGER**

#### **Hazard statements**

Causes severe skin burns and eye damage

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

Flammable liquid and vapor

**Appearance** Light yellow liquid.**Physical state** Liquid**Odor** Slight Amine**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wash face, hands and any exposed skin thoroughly after handling  
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
 Keep container tightly closed  
 Ground/bond container and receiving equipment  
 Use explosion-proof electrical/ventilating/lighting/equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge

**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  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 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: Rinse mouth. DO NOT induce vomiting  
 In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

No information available

**Other Information**

- May be harmful if swallowed

**Unknown Acute Toxicity**

4.58% of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT COMPOSITION	CAS No.	%	TRADE SECRET
Cyclohexylamine	108-91-8	7.08	
Diethylaminoethanol (DEAE)	100-37-8	8.75	
Trisodium nitrilotriacetate	5064-31-3	3.63	
Sodium Metabisulfite	7681-57-4	4.95	

### 4. FIRST AID MEASURES

**First aid measures**

<b>General advice</b>	Immediately call a POISON CENTER or doctor/physician.
<b>Eye contact</b>	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.
<b>Skin contact</b>	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
<b>Inhalation</b>	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.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Drowsiness. Dizziness.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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

**Specific hazards arising from the chemical**

No information available.

**Explosion data**

**Sensitivity to Mechanical Impact** NONE.

**Sensitivity to Static Discharge** NONE.

**Protective equipment and precautions for firefighters**

CORROSIVE MATERIAL. Avoid exposure to mist and splashes. 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** Wear adequate personal protective equipment, see Section 8, Exposure Controls/Personal Protection.

**Environmental precautions**

**Environmental precautions** See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for containment** Dike to contain. Pick up with absorbant material. Put in suitable container for disposal.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only in well-ventilated areas. Avoid contact with eyes, skin and clothing. DO NOT pressurize, weld, or heat containers.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Vapors are heavier than air and may tend to collect in low or poorly ventilated areas resulting in possible fire and/or inhalation hazard. Empty containers may retain product residue, follow SDS/label precautions even after container is emptied. Do not store in metal containers.

**Incompatible materials** Strong oxidents, such as nitric acid, or hypochlorites. Metals.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

PRODUCT COMPOSITION	ACGIH TLV	OSHA PEL	NIOSH IDLH
Cyclohexylamine 108-91-8	TWA: 10 ppm	(vacated) TWA: 10 ppm (vacated) TWA: 40 mg/m <sup>3</sup>	-
Diethylaminoethanol (DEAE) 100-37-8	TWA: 2 ppm	S* (vacated) S* (vacated) TWA: 10 ppm (vacated) TWA: 50 mg/m <sup>3</sup> TWA: 10 ppm TWA: 50 mg/m <sup>3</sup>	100 ppm
Sodium Metabisulfite 7681-57-4	TWA: 5 mg/m <sup>3</sup>	(vacated) TWA: 5 mg/m <sup>3</sup>	-

**Appropriate engineering controls**

**ENGINEERING CONTROLS** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Goggles and face shield are recommended to minimize eye contact.

**Skin and body protection** Nitrile, neoprene, or other appropriate gloves are recommended to minimize hand 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**

<b>Physical state</b>	Liquid	<b>Odor</b>	Slight Amine
<b>Appearance</b>	Light yellow liquid.	<b>Odor threshold</b>	No information available
<b>Color</b>	Light Yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	10.8	
Melting point/freezing point	No information available	
Boiling point / boiling range	100 °C / 212 °F	
Flash point	57 °C / 135 °F	
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	1.060 - 1.072	
Water solubility	No information available	
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):	186.6
Density	8.88 lbs/gal (1.065 kg/l)
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**

Keep away from heat, sparks, and flame.

**Incompatible materials**

Strong oxidents, such as nitric acid, or hypochlorites. Metals.

**Hazardous Decomposition Products**

Oxides of Carbon. Oxides of Nitrogen. Sulfur dioxide.

**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

<b>Product Information</b>	Causes severe skin burns and eye damage. May be harmful if swallowed.
<b>Inhalation</b>	Causes burns.
<b>Eye contact</b>	Corrosive to the eyes and may cause severe damage including blindness.
<b>Skin contact</b>	Causes burns.

**Ingestion**

May be harmful if swallowed. Causes burns.

PRODUCT COMPOSITION	Oral LD50	Dermal LD50	Inhalation LC50
Cyclohexylamine 108-91-8	= 11 mg/kg ( Rat )	= 320 mg/kg ( Rabbit )	-
Diethylaminoethanol (DEAE) 100-37-8	= 1300 mg/kg ( Rat )	= 1260 µL/kg ( Rabbit )	-
Trisodium nitrilotriacetate 5064-31-3	= 920 mg/kg ( Rat )	-	> 5 mg/L ( Rat ) 4 h
Sodium Metabisulfite 7681-57-4	= 1131 mg/kg ( Rat )	-	-

**Information on toxicological effects****Symptoms**

No information available.

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

May cause allergic reaction in sulfite sensitive individuals.

**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
Cyclohexylamine 108-91-8	-	Group 3	-	-
Trisodium nitrilotriacetate 5064-31-3	-	Group 2B	-	X
Sodium Metabisulfite 7681-57-4	-	Group 3	-	-

**Reproductive Toxicity**

Possible risk of impaired fertility. Possible risk of harm to the unborn child.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

No information available.

**Aspiration hazard**

No information available.

**Numerical measures of toxicity - Product Information****Unknown Acute Toxicity**

4.58% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 3423 mg/kg

ATEmix (dermal) 7023 mg/kg

ATEmix (inhalation-dust/mist) 17.1 mg/l

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

5.58% of the mixture consists of components(s) of unknown hazards to the aquatic environment

PRODUCT COMPOSITION	Algae/aquatic plants	Fish	Crustacea
Cyclohexylamine 108-91-8	20: 96 h Pseudokirchneriella subcapitata mg/L EC50 20: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	470: 96 h Brachydanio rerio mg/L LC50 static 44 - 90: 96 h Oncorhynchus mykiss mg/L LC50	-
Diethylaminoethanol (DEAE) 100-37-8	30: 72 h Desmodesmus subspicatus mg/L EC50	1660 - 1920: 96 h Pimephales promelas mg/L LC50 flow-through	83.6: 48 h Daphnia magna Straus mg/L EC50
Trisodium nitrilotriacetate 5064-31-3	-	93 - 170: 96 h Pimephales promelas mg/L LC50 flow-through 560 - 1000: 96 h Poecilia reticulata mg/L LC50 560 - 1000: 96 h Poecilia reticulata mg/L LC50 semi-static 72 - 133: 96 h Oncorhynchus mykiss mg/L LC50 static 114: 96 h	560 - 1000: 48 h Daphnia magna mg/L LC50

		Pimephales promelas mg/L LC50 560 - 1000: 96 h Oryzias latipes mg/L LC50 470: 96 h Pimephales promelas mg/L LC50 static 252: 96 h Lepomis macrochirus mg/L LC50 175 - 225: 96 h Lepomis macrochirus mg/L LC50 static 560 - 1000: 96 h Oryzias latipes mg/L LC50 semi-static	
Sodium Metabisulfite 7681-57-4	40: 96 h Desmodemus subspicatus mg/L EC50 48: 72 h Desmodemus subspicatus mg/L EC50	32: 96 h Lepomis macrochirus mg/L LC50 static	-

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

PRODUCT COMPOSITION	Partition coefficient
Cyclohexylamine 108-91-8	1.2
Diethylaminoethanol (DEAE) 100-37-8	0.21
Sodium Metabisulfite 7681-57-4	-3.7

**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. 2357  
 Proper shipping name CYCLOHEXYLAMINE MIXTURE  
 Hazard Class 8  
 Subsidiary class 3  
 Packing Group II  
 Description 1 Liter (0.26 Gallons) and Less may be classed as LTD. QTY.

**TDG**

UN/ID No. 2357  
 Proper shipping name CYCLOHEXYLAMINE MIXTURE  
 Hazard Class 8  
 Subsidiary class 3  
 Packing Group II  
 Description 1 Liter (0.26 Gallons) and Less may be classed as LTD. QTY.

**15. REGULATORY INFORMATION**

**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

**Legend:**

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

<b>ACUTE HEALTH HAZARD</b>	YES
<b>CHRONIC HEALTH HAZARD</b>	YES
<b>FIRE HAZARD</b>	YES
<b>Sudden release of pressure hazard</b>	No
<b>REACTIVE HAZARD</b>	No

**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
Cyclohexylamine 108-91-8	-	10000

**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:
Cyclohexylamine 108-91-8	0576	Listed	Listed
Diethylaminoethanol (DEAE) 100-37-8	Listed	Listed	Listed
Trisodium nitrilotriacetate 5064-31-3		Listed	
Sodium Metabisulfite 7681-57-4		Listed	Listed

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

<b>16. OTHER INFORMATION</b>
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**NFPA**

Health hazards 3

Flammability 2

Instability 1

Physical and Chemical Properties CORR

**HMIS**

Health hazards 3

Flammability 2

Physical hazards 1

Personal protection X

Revision Date

05/03/2017

Revision Note

Minor revisions for Canadian GHS compliance.

**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 \*\*\*