

# SAFETY DATA SHEET

EWS S88

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Compilation date: 13/04/2016

Revision No: 1

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

### 1.1. Product identifier

Product name: EWS S88

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

Use of substance / mixture: Boiler water treatment.

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

Company name: Future Water Ltd  
The Pattern House  
Milford Bridge  
Milford  
Derbyshire  
DE56 0RR  
Tel: 01332 841122  
Fax: 01332 841155  
Email: office@futurewaterltd.co.uk

### 1.4. Emergency telephone number

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification under CLP: Acute Tox. 4: H302; Skin Corr. 1B: H314; Acute Tox. 4: H312; Acute Tox. 4: H332

Classification under CHIP: C: R34; Xn: R20/21/22

Most important adverse effects: Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. Harmful if inhaled.

### 2.2. Label elements

#### Label elements under CLP:

Hazard statements: H302: Harmful if swallowed.  
H312: Harmful in contact with skin.  
H314: Causes severe skin burns and eye damage.  
H332: Harmful if inhaled.

Signal words: Danger

Hazard pictograms: GHS05: Corrosion  
GHS07: Exclamation mark



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**Precautionary statements:** P260: Do not breathe vapours.  
P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.  
P262: Do not get in eyes, on skin, or on clothing.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

## 2.3. Other hazards

**Other hazards:** In use, may form flammable / explosive vapour-air mixture.

**PBT:** This product is not identified as a PBT substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

MORPHOLINE - REACH registered number(s): 01-2119496057-30-XXXX

EINECS	CAS	CHIP Classification	CLP Classification	Percent
203-815-1	110-91-8	-	Flam. Liq. 3: H226; Acute Tox. 4: H332; Acute Tox. 4: H312; Acute Tox. 4: H302; Skin Corr. 1B: H314	10-30%

CYCLOHEXYLAMINE - REACH registered number(s): 01-2119486803-29-XXXX

203-629-0	108-91-8	-	Flam. Liq. 3: H226; Repr. 2: H361f; Acute Tox. 4: H312; Acute Tox. 4: H302; Skin Corr. 1B: H314	10-30%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.
- Eye contact:** Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.
- Ingestion:** Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious, check for breathing and apply artificial respiration if necessary. If

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unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

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

**Skin contact:** Irritation or pain may occur at the site of contact. There may be redness or whiteness of the skin in the area of exposure. Blistering may occur. Severe burns may occur.

**Eye contact:** There may be irritation and redness. There may be severe pain. The eyes may water profusely. Corneal burns may occur.

**Ingestion:** There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. Corrosive burns may appear around the lips. Nausea and stomach pain may occur. There may be vomiting. Blood may be vomited.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. There may be coughing and a sore throat. There may be congestion of the lungs causing severe shortness of breath. There may be loss of consciousness.

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

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Carbon dioxide. Water spray.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** Corrosive. In combustion emits toxic fumes.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Refer to section 8 of SDS for personal protection details.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Mix with sand or vermiculite. Transfer to a suitable container. Wash down the drain with large amounts of water.

### 6.4. Reference to other sections

## Section 7: Handling and storage

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## 7.1. Precautions for safe handling

**Handling requirements:** Ensure there is sufficient ventilation of the area. Avoid direct contact with the substance.

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

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed.

**Suitable packaging:** Must only be kept in original packaging.

## 7.3. Specific end use(s)

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Workplace exposure limits:

#### Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	72 mg/m <sup>3</sup>	109 mg/m <sup>3</sup>	-	-

#### Hazardous ingredients:

#### MORPHOLINE

#### Workplace exposure limits:

#### Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	72 mg/m <sup>3</sup>	109 mg/m <sup>3</sup>	-	-

#### CYCLOHEXYLAMINE

UK	41 mg/m <sup>3</sup>	-	-	-
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### 8.1. DNEL/PNEC Values

**DNEL / PNEC** No data available.

### 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Respiratory protection with suitable filter that also fully encloses and protects the eyes.

**Hand protection:** Protective gloves.

**Eye protection:** Safety goggles. Face-shield. Ensure eye bath is to hand.

**Skin protection:** Protective clothing with elasticated cuffs and closed neck. Boots made of PVC. PVC apron covering the tops of the boots. Ensure safety shower is to hand.

## Section 9: Physical and chemical properties

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

**State:** Liquid

**Colour:** Pale brown

**Odour:** Pungent

**Evaporation rate:** Moderate

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**Oxidising:** Non-oxidising (by EC criteria)

**Solubility in water:** Highly soluble

**Viscosity:** Non-viscous

**Flash point°C:** 56.5

**Relative density:** 0.90-0.95

**pH:** 9 - 12

## 9.2. Other information

**Other information:** No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions. Stable at room temperature.

### 10.3. Possibility of hazardous reactions

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat. Hot surfaces. Sources of ignition. Flames.

### 10.5. Incompatible materials

**Materials to avoid:** Strong acids. Finely powdered metals.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicity values:

Route	Species	Test	Value	Units
ORL	MUS	LD50	770	mg/kg
ORL	RAT	LD50	11	mg/kg
SCU	MUS	LD50	1150	mg/kg

#### Hazardous ingredients:

#### MORPHOLINE

ORL	MUS	LD50	525	mg/kg
ORL	RAT	LD50	1450	mg/kg
ORL	RAT	LDLO	1600	mg/kg

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## CYCLOHEXYLAMINE

ORL	MUS	LD50	770	mg/kg
ORL	RAT	LD50	11	mg/kg
SCU	MUS	LD50	1150	mg/kg

### Relevant effects for mixture:

Effect	Route	Basis
Acute toxicity (harmful)	INH DRM ING	Hazardous: calculated
Corrosivity	OPT INH DRM	Hazardous: calculated

## Symptoms / routes of exposure

**Skin contact:** Irritation or pain may occur at the site of contact. There may be redness or whiteness of the skin in the area of exposure. Blistering may occur. Severe burns may occur.

**Eye contact:** There may be irritation and redness. There may be severe pain. The eyes may water profusely. Corneal burns may occur.

**Ingestion:** There may be soreness and redness of the mouth and throat. There may be difficulty swallowing. Corrosive burns may appear around the lips. Nausea and stomach pain may occur. There may be vomiting. Blood may be vomited.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. There may be coughing and a sore throat. There may be congestion of the lungs causing severe shortness of breath. There may be loss of consciousness.

## Section 12: Ecological information

### 12.1. Toxicity

#### Hazardous ingredients:

#### CYCLOHEXYLAMINE

Daphnia magna	48H EC50	36.3	mg/l
Oryzias latipes	14 DAYS EC50	19	mg/l

### 12.2. Persistence and degradability

**Persistence and degradability:** No data available.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

### 12.4. Mobility in soil

**Mobility:** Soluble in water.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT substance.

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## 12.6. Other adverse effects

**Other adverse effects:** Do not allow concentrated product to enter rivers or water courses.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company. Do not allow entry to drains or waterways.

**Disposal of packaging:** Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN2735

### 14.2. UN proper shipping name

**Shipping name:** AMINES, LIQUID, CORROSIVE, N.O.S.  
(MORPHOLINE; CYCLOHEXYLAMINE)

### 14.3. Transport hazard class(es)

**Transport class:** 8

### 14.4. Packing group

**Packing group:** III

### 14.5. Environmental hazards

**Environmentally hazardous:** No

**Marine pollutant:** No

### 14.6. Special precautions for user

**Tunnel code:** E

**Transport category:** 2

## Section 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

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**Phrases used in s.2 and 3:** H226: Flammable liquid and vapour.  
H302: Harmful if swallowed.  
H312: Harmful in contact with skin.  
H314: Causes severe skin burns and eye damage.  
H332: Harmful if inhaled.  
H361f: Suspected of damaging fertility.  
R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.  
R34: Causes burns.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.