


## MATERIAL SAFETY DATA SHEET

### SECTION 1 - PRODUCT IDENTIFICATION

<b>Product name</b>	Duramine 400	<b>Chemical family</b>
<b>Product use</b>	BOILER WATER TREATMENT	
<b>Supplier</b>	 8 Copernicus Blvd. Brantford, ON N3P 1Y4 Tel: 519-758-8111	<b>Emergency Telephone #: 613-996-6666</b>

### SECTION 2 - INGREDIENTS

INGREDIENTS	CAS #	%	LC50 ppm (Rat, Inhal)	LD50 ppm (Rat, Oral)
MORPHOLINE	110-91-8	10-30	>12000	1050
CYCLOHEXYLAMINE	108-91-8	15-40	8000	710

### SECTION 3 - PHYSICAL DATA

<b>Boiling Point:</b>	< 130 (Deg C)	<b>Specific Gravity:</b>	1.09
<b>Vapor pressure:</b>	N/A	<b>Evaporation rate:</b>	N/A
<b>Vapor density:</b>	N/A	<b>Solubility in water:</b>	VERY SOLUBLE
<b>Volatiles in %:</b>	100	<b>Freezing point:</b>	0 Deg C
<b>pH:</b>	10	<b>Auto-ignition temperature:</b>	N/A
<b>Coefficient of water/oil distribution:</b>	N/A		
<b>Appearance and odor</b>	CLEAR TO SLIGHT YELLOW LIQUID WITH STRONG AMMONIA LIKE ODOUR.		
<b>Odor Threshold:</b>	N/A		

### SECTION 4 - FIRE AND EXPLOSION DATA

<b>Flash Point (method):</b>	60 Deg C TOC	<b>LEL:</b>	N/A	<b>UEL:</b>	N/A
<b>Extinguishing media:</b>	CARBON DIOXIDE				
<b>Special fire fighting instructions.</b>	DRY CHEMICAL; WATER SPRAY				
<b>Unusual fire and explosion hazards:</b>					

## MATERIAL SAFETY DATA SHEET

## SECTION 5 - REACTIVITY DATA

**Stability:** Stable

**Incompatibility:** ACIDS AND OXIDIZING MATERIALS

**Hazard decomposition products:** WHEN HEATED TO DECOMPOSITION TOXIC FUMES ARE EMITTED.

**Polymerisation** Will not occur

## SECTION 6 - HEALTH HAZARD INFORMATION

**ROUTES OF EXPOSURE AND ACUTE EFFECTS**

**Exposure limit:** N/A

**Inhalation:** WILL CAUSE IRRITATION OF RESPIRATORY TRACT AND LUNGS.

**Skin:** MAY CAUSE SEVERE SKIN IRRITATION.

**Eyes:** WILL CAUSE SEVERE EYE IRRITATION.

**Ingestion:** A STRONG IRRITANT TO THE DIGESTIVE SYSTEM.

**Chronic effects:** NONE DETERMINED.

## FIRST AID

**Inhalation:** REMOVE TO FRESH AIR AND OBTAIN MEDICAL ATTENTION.

**Skin:** FLUSH WITH PLENTY OF WATER AND OBTAIN MEDICAL ATTENTION.

**Eye:** FLUSH WITH PLENTY OF WATER AND OBTAIN MEDICAL ATTENTION.

**Ingestion:** DO NOT INDUCE VOMITTING. DRINK PLENTY OF WATER AND SEEK MEDICAL ATTENTION IMMEDIATELY.

## SECTION 7 - SPILL, LEAK, AND DISPOSAL PROCEDURES

**Spill, leak or release:** SPILLS SHOULD BE CONTAINED AND COVERED WITH SODIUM BISULFATE. SPRAY WITH WATER AND SCOOP INTO STEEL CONTAINERS FOR PROPER DISPOSAL

**Waste disposal:**  
IN ACCORDANCE WITH FEDERAL AND LOCAL REGULATIONS.

## MATERIAL SAFETY DATA SHEET

### SECTION 8 - SPECIAL PROTECTION INFORMATION]

**Respiratory protection** AN APPROVED RESPIRATOR OF ORGANIC MISTS AND VAPOURS.

**Ventilation:** Local exhaust

**Protective Gloves:** RUBBER.

**Eye protection:** CHEMICAL GOGGLES AND/OR FACE SHIELD.

**Other protective equipment:** CHEMICAL RESISTANT SUIT AND RUBBER BOOTS.

### SECTION 9 - SPECIAL PRECAUTIONS

**Storage and handling conditions:** KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP FROM FREEZING.

### SECTION 10 - SPECIAL SHIPPING REQUIREMENTS

**Proper shipping name:** CORROSIVE LIQUID FLAMMABLE N.O.S.

**P.I.N #** 2920

**Prepared by:** Mike Wiens

**Preparation date:** 12/21/2009