



# PMC WATER SYSTEMS SERVICES INC.

124 CONNIE CRES. UNIT 9 CONCORD, ONTARIO.

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## MATERIAL SAFETY DATA SHEET B-3201-HX

### Protection Required



### MATERIAL IDENTIFICATION AND USE

**Manufacturer's Name** : PMC Water Systems Services Inc.  
**Manufacturer's Address** : 124 Connie Crescent, Unit 9, Concord, ON L4K 1L7  
**Manufacturer's Phone #** : (905) 669-8262  
**24 Emergency Phone #** : Canutec (613) 996-6666  
**Product Identifier** : B-3201-HX  
**Product Use** : Water Treatment  
**WHMIS Class** : [D2B] Poisonous, [E] Corrosive  
**TDG Class** : Corrosive Liquid, Flammable NOS, Class 8 (3), UN 2920, PG II

### HAZARDOUS INGREDIENTS OF MATERIAL

Ingredients	Concentration	CAS #	LD <sub>50</sub>	LC <sub>50</sub>
Morpholine	15-30%	110-91-8	1913 mg/kg (rat)	20 ppm (skin)
Cyclohexylamine	15-30%	108-91-8	156 mg/kg (rat)	TLV 10 ppm

The remaining ingredients are not classified as hazardous according to the DSL.

### PHYSICAL DATA FOR PRODUCT

**Physical State** : Liquid  
**Odour and Appearance** : Fishy Amine Odour, Amber Liquid  
**Odour Threshold** : No Data Available  
**Specific Gravity (Water = 1)** : 0.90 – 0.92 g/cc  
**Vapour Pressure (mmHg)** : No Data Available  
**Vapour Density (Air = 1)** : No Data Available  
**Evaporation Rate** : No Data Available  
**Boiling Point** : 127° to 134°C, 260.6° to 273.2°F  
**Freezing Point** : -5° to -18°C, 23°F to -4°F  
**pH** : 10.5 (1% Solution)  
**Coefficient Water/Oil Distribution** : No Data Available

### FIRE AND EXPLOSION HAZARD OF PRODUCT

**Flash Point And Method of Determination** : 31°C, 87.8°F  
**Conditions of Flammability** : Not Flammable  
**Means of Extinction** : Use carbon dioxide or dry chemical  
**Upper Explosion Limit** : No Data Available  
**Lower Explosion Limit** : No Data Available  
**Auto-Ignition Temperature** : No Data Available  
**Hazardous Combustion Products** : When product is involved in a fire, fire fighters should wear full protective clothing and self-contained breathing apparatus if exposed to vapours or products of combustion.

## REACTIVITY DATA

<b>Stability</b>	:	Stable
<b>Incompatible Materials</b>	:	Oxidizers, strong acids, all copper alloys, lead and oxides of nitrogen
<b>Conditions of Reactivity</b>	:	Not Applicable
<b>Hazardous Decomposition Products</b>	:	Nitrogen and Carbon Oxides

## TOXICOLOGICAL PROPERTIES

<b>Routes of Entry</b>	:	
<b>Skin Contact</b>	:	-
<b>Skin Absorption</b>	:	Yes
<b>Eye Contact</b>	:	Yes
<b>Ingestion</b>	:	Yes
<b>Inhalation</b>	:	Yes
<b>Acute or Over Exposure Effects</b>	:	Irritant to eyes, lungs and skin. Poison by ingestion.
<b>Chronic Exposure Effects</b>	:	Dermatitis, irritation of respiratory tract
<b>Exposure Limit</b>	:	TLV-TWA 20 ppm Morpholine, TLV-TWA 10 ppm Cyclohexylamine
<b>Irritancy</b>	:	Slight to Moderate
<b>Sensitization</b>	:	Skin
<b>Carcinogenicity</b>	:	Not Applicable (ACGIH 1987-88)
<b>Teratogenicity</b>	:	Possible
<b>Mutagenicity</b>	:	Possible
<b>Reproductive Effects</b>	:	Possible

## PREVENTATIVE MEASURES

<b>Personal Protective Equipment</b>	:	Use rubber gloves, goggles or face shield.
<b>Respiratory Protection</b>	:	NIOSH approved respirator if TLV is exceeded.
<b>Ventilation Requirements</b>	:	Normal room ventilation
<b>Spill and Leak Procedures</b>	:	Eliminate all sources of ignition. Remove to a sealable container for disposal.
<b>Storage Requirements</b>	:	Keep container closed when not in use. Store away from heat sparks or fire. Store in a ventilated area.

## FIRST AID MEASURES

Flush eyes with abundant water. Rinse skin with soap and water. In case of ingestion, do not induce vomiting. Call a physician. In case of discomfort by vapour, move to a ventilated area. If breathing has stopped, administer artificial respiration. Call a physician.

## PREPARATION INFORMATION

<b>Prepared By</b>	:	Lab Services PMC Water Systems Services Inc. 124 Connie Crescent, Unit 9 Concord, ON L4K 1L7
<b>Phone</b>	:	905-669-8262
<b>Fax</b>	:	905-669-8252
<b>Date Prepared</b>	:	July 14, 2013

While all the data presented is believed to be accurate at the time of preparation, PMC Water Systems Services Inc. makes no warranty; the data is offered for your consideration, investigation and verification.