



PMC WATER SYSTEMS SERVICES INC.

124 CONNIE CRES. UNIT 9 CONCORD, ONTARIO.

TEL 905 669 8262, FAX 905 669 8252, EMAIL pmcwater@aol.com, www.pmcwatersystems.com

MATERIAL SAFETY DATA SHEET B-3201

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
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 ₅₀	LC ₅₀
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) : 0.91 – 0.93 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 (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

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

TOXICOLOGICAL PROPERTIES

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

PREVENTATIVE MEASURES

Personal Protective Equipment	:	Use rubber gloves, goggles or face shield.
Respiratory Protection	:	NIOSH approved respirator if TLV is exceeded.
Ventilation Requirements	:	Normal room ventilation
Spill and Leak Procedures	:	Eliminate all sources of ignition. Remove to a sealable container for disposal.
Storage Requirements	:	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

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