


# MATERIAL SAFETY DATA SHEET

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

<b>PRODUCT NAME:</b> Mitsubishi SLM - OA2 Fountain Solution Additive		<b>DATE:</b> December 16, 2008	
<b>PRODUCT NUMBER:</b>		<b>DATE:</b> December 16, 2008	
<b>TRADE NAME:</b> Mitsubishi SLM - OA2 Fountain Solution Additive <b>GENERAL USE:</b> Fountain solution additive for SLM/SDP <b>CHEMICAL FAMILY:</b> <b>PRODUCT DESCRIPTION:</b> Opaque white solution, odorless.			
<b>MANUFACTURER</b> Mitsubishi Paper Mills Ltd.		<b>DATE PREPARED:</b> December 16, 2008	
<b>ADDRESS (NUMBER, STREET, P.O. BOX)</b> 4-2 Marunouchi 3-Chome		<b>SUPERSEDES:</b> October 20, 2007	
		<b>TELEPHONE NUMBER FOR INFORMATION / Customer Service</b> 03-3213-3641	
<b>(CITY, STATE AND ZIP CODE)</b> Chiyoda-ku, Tokyo 100-005	<b>COUNTRY</b> Japan	<b>Chemtrec 24-HOUR EMERGENCY TELEPHONE NUMBER</b> 1-800-424-9300      01-703-527-3887 North America Toll Free      International	
<b>DISTRIBUTOR</b> Mitsubishi Imaging (MPM), Inc.			
<b>ADDRESS (NUMBER, STREET, P.O. BOX)</b> 555 Theodore Fremd Avenue		<b>TELEPHONE NUMBER FOR INFORMATION / Customer Service</b> (914) 925-3200	
<b>(CITY, STATE AND ZIP CODE)</b> Rye, NY 10580	<b>COUNTRY</b> USA	<b>Chemtrec 24-HOUR EMERGENCY TELEPHONE NUMBER</b> 1-800-424-9300      01-703-527-3887 North America Toll Free      International	

## SECTION 2 - HAZARDOUS INGREDIENTS

Hazardous Components	% (by Weight)	CAS #	EINECS #	Hazard Symbol	RISK PHRASES (Full Text Section 15)
Silica, amorphous	10 - 30	7631-86-9	231-545-4	NC	Not Classified
Ethylene Glycol (a,b,c,d)	3 - 7	107-21-1	203-473-3	Xn	R-22

**(a,c) See Section 15**

**(b) Indicates that the Resource Conservation and Recovery Act (RCRA) has determined the waste for this chemical is listed as hazardous and must be handled according to regulations in 40 CFR 260-281.**

**(d) A "C" in the OSHA PEL or ACGIH TWA column indicates ceiling limits, the concentration that should not be exceeded during any part of the working exposure.**

**NOTES:** Note: This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Directive 91/155/EEC. Hazard symbols and risk phrases are based on maximum listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS) or the European (GHS) directive 91/155/EEC and are considered trade secrets under US Federal Law (29CFR and 40CFR), Canadian Law (Health Canada Legislation), and European Union Directive 67/548/EEC.

## SECTION 3 - HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

**WARNING!** Harmful or fatal if swallowed, harmful if inhaled or absorbed through the skin. May cause allergic skin reaction. May cause irritation to skin, eyes, and respiratory tract. Affects central nervous system. Hazard symbols for this product - Xn. Risk Phrases - R22

### POTENTIAL HEALTH EFFECTS

**INHALATION:**  
High concentrations in the form of vapors or mists are irritating to the respiratory tract; may cause headache, dizziness, nausea and vomiting.

**SKIN:**  
Brief contact may cause slight irritation; prolonged contact may cause moderate irritation or dermatitis.

**EYES:**  
High vapor concentration or contact may cause irritation and discomfort.

**INGESTION:**  
May cause abdominal discomfort or pain, nausea, vomiting, dizziness, or possible convulsions or coma; large doses may be fatal.

**CARCINOGENICITY:**

NTP? <b>NO</b>	IARC MONOGRAPHS? <b>NO</b>	OSHA REGULATED? <b>NO</b>
CALIFORNIA, Prop.65? <b>NO</b>		ESIS NOTATION? <b>NO</b>

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## SECTION 4 - FIRST AID MEASURES

**INHALATION:**  
Remove affected person to fresh air; if symptoms persist seek medical attention.

**EYES:**  
Remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention.

**SKIN:**  
Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.

**INGESTION:**  
Give two glasses of water for dilution; Induce vomiting by sticking fingers down throat; never give anything by mouth to an unconscious person; seek medical attention.

## SECTION 5 - FIRE FIGHTING MEASURES

**GENERAL HAZARDS:**  
Product is not considered flammable or combustible. Products of combustion include compounds of carbon, hydrogen, sulfur and oxygen, including Carbon Monoxide.

**EXTINGUISHING MEDIA:**  
Carbon Dioxide, water, water fog, dry chemical, chemical foam.

**FIRE FIGHTING PROCEDURES:**  
Keep containers cool with water spray to prevent container rupture due to steam buildup; floor will become slippery if material is released.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**  
None

**HAZARDOUS COMBUSTION PRODUCTS:**  
Smoke, fumes, oxides of carbon.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**  
Small spills - wash to sanitary sewer with plenty of water. Large spills - confine spill, soak up with approved absorbent, shovel product into approved container; for spills in excess of allowable limits (RQ) notify the National Response Center (800) 424 - 8802; refer to SARA Title III, Section 313 40 CFR 372, and CERCLA 40 CFR 302 for complete regulations concerning reporting requirements.

## SECTION 7 - HANDLING AND STORAGE

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:**  
Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures. Keep this and other chemicals out of reach of children.

## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

HAZARDOUS COMPONENTS	NIOSH				ACGIH		OSHA	
	TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3	TLV/TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3
<b>Silica, amorphous</b>		<b>6</b>		-		-		-
<b>Ethylene Glycol (a,b,c,d)</b>	-	-	-	-	<b>39.4 C</b>	<b>127 C</b>	<b>39.4 C</b>	<b>127 C</b>

A "C" in the OSHA PEL or ACGIH TWA column indicates ceiling limits, the concentration that should not be exceeded during any part of the working exposure.

### PERSONAL PROTECTION

**RESPIRATORY PROTECTION:**  
None required while threshold limits (Section 2) are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator must be worn. Refer to 29 CFR 1910.134 or European Standard EN 149 for complete regulations.

**PROTECTIVE GLOVES:**  
Neoprene or rubber gloves with cuffs.

**EYE PROTECTION:**  
Protective eyeglasses or chemical safety goggles. Refer to 29 CFR 1910.133 or European Standard EN166.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:**  
Safety eyebath nearby.

**WORK / HYGIENIC PRACTICES:**  
Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

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<b>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</b>			
APPEARANCE AND ODOR <b>Opaque white solution, odorless.</b>		VAPOR PRESSURE <b>17 mm Hg @ 20° C</b>	
pH <b>8.75 ± 0.25</b>		SPECIFIC GRAVITY (WATER = 1) <b>1.130 ± 0.01</b>	
BOILING POINT / BOILING RANGE <b>212° F (100° C)</b>		SOLUBILITY IN WATER <b>Miscible</b>	
FLASH POINT <b>Non-flammable</b>		VISCOSITY <b>Not specified</b>	
FLAMMABLE LIMITS <b>LEL: NA UEL: NA</b>		VAPOR DENSITY (AIR = 1) <b>&gt; 1</b>	
AUTO-IGNITION TEMPERATURE <b>ND</b>		EVAPORATION RATE (WATER = 1) <b>&lt; 1</b>	
VOLATILE ORGANIC COMPOUND (VOC) INFORMATION (VOC Content Wt%) <b>VOC= 0.0%</b>			
<b>SECTION 10 - STABILITY AND REACTIVITY</b>			
STABILITY	STABLE	X	CONDITIONS TO AVOID: <b>Extreme temperatures.</b>
INCOMPATIBILITY (MATERIALS TO AVOID): <b>Strong oxidizers, strong acids.</b>			
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: <b>Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes, and smoke may be produced.</b>			
HAZARDOUS POLYMERIZATION: <b>Will Not Occur.</b>		CONDITIONS TO AVOID: <b>None Related to Polymerization.</b>	
<b>SECTION 11 - TOXICOLOGICAL INFORMATION</b>			
Hazardous Components	CAS # EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
<b>Silica, amorphous</b>	<b>7631-86-9</b>	<b>&gt; 5000 mg / kg Oral - rat</b>	<b>NE</b>
	<b>231-545-4</b>		
<b>Ethylene Glycol (a,b,c,d)</b>	<b>107-21-1</b>	<b>4700 mg / kg Oral - rat</b>	<b>10876 mg / kg Inhalation - rat</b>
	<b>203-473-3</b>		
Do not allow undiluted and/or large quantities of product to enter sewage systems or reach ground water or bodies of water.			
<b>SECTION 12 - ECOLOGICAL INFORMATION</b>			
No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.			
<b>SECTION 13 - DISPOSAL CONSIDERATIONS</b>			
WASTE DISPOSAL METHOD: According to the European Waste Catalogue, waste codes are application specific and should be assigned by the user based on the application for which the product is used. Dispose of in accordance with Local, State, and Federal Regulations. Product is classified as non - hazardous, however, non-hazardous materials may become hazardous waste upon contact with other products. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals.			
<b>SECTION 14 - TRANSPORT INFORMATION</b>			
PROPER SHIPPING NAME: <b>Not Regulated</b>			
DOT HAZARD CLASS / Pack Group: <b>Not Regulated</b>		IATA HAZARD CLASS / Pack Group: <b>Not Regulated</b>	
REFERENCE: <b>NA</b>		IMDG HAZARD CLASS: <b>Not Regulated</b>	
UN / NA IDENTIFICATION NUMBER: <b>None</b>		RID/ADR Dangerous Goods Code: <b>Not Regulated</b>	
LABEL: <b>None Required</b>		UN TDG Class / Pack Group: <b>Not Regulated</b>	
HAZARD SYMBOLS: <b>None</b>		Hazard Identification Number (HIN): <b>None</b>	
Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.			

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## SECTION 15 - REGULATORY INFORMATION

**TSCA (USA - Toxic Substance Control Act):** All components of this product are listed.  
**SARA TITLE III (USA - Superfund Amendments and Reauthorization Act):** Immediate health.  
 Acute Health: **NO** Chronic Health: **NO**  
 Fire: **NO** Sudden Release of Pressure: **NO**  
 Reactive: **NO**

**SARA 313 REPORTABLE INGREDIENTS:** Yes - Ethylene glycol (CAS# 107-21-1)  
**CERCLA (USA - Comprehensive Response Compensation and Liability Act):** (c) The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) has notification requirements for releases or spills to the environment in quantities greater than 24,000 pounds, based on the Reportable Quantities (RQ) of the individual components, and in agreement with US Code of Federal Regulations 40 CFR 302.  
 California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: **No**  
**CPR (Canadian Controlled Products Regulations):** WHMIS Classification: D2B  
**IDL (Canadian Ingredient Disclosure List):** Components of this product identified by CAS number are listed.  
**DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List):** Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations.  
**EINECS (European Inventory of Existing Commercial Chemical Substances):** Referenced.

**WGK Water Quality Index:** 1 **VbK Index:** NA

<b>RISK PHRASES:</b> <b>R22 : Harmful if swallowed.</b>	<b>SYMBOL(S) REQUIRED FOR EU LABEL</b>  (+Xn): Harmful	<b>SAFETY PHRASES:</b> <b>S2 : Keep out of the reach of children.</b> <b>S24/25 : Avoid contact with skin and eyes.</b>
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## SECTION 16 - OTHER INFORMATION

**Legend:**

- ACGIH - American Congress of Government Industrial Hygienists**
- CAS - Chemical Abstracts Service**
- EINECS - European Inventory of Existing Commercial Chemical Substances**
- HMIS - Hazardous Materials Identification System**
- IARC - International Agency for Research on Cancer**
- NA - Not Available**
- ND - Not Determined**
- NE - Not Established**
- NR - Not Reported**
- NIOSH - National Institute for Occupational Safety and Health**
- NTP - National Toxicology Program**
- OSHA - Occupational Safety and Health Administration**

<b>HMIS HAZARD RATINGS</b>	<b>HEALTH:</b> <b>FLAMMABILITY:</b> <b>PHYSICAL HAZARD:</b> <b>PERSONAL PROTECTIVE EQUIPMENT:</b>	<b>1</b> <b>0</b> <b>0</b> <b>B</b>	0 = INSIGNIFICANT 1 = SLIGHT 2 = MODERATE 3 = HIGH 4 = EXTREME
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**REVISION SUMMARY:**  
 Revised to GHS/E.U. protocols 12/16/2008 supersedes 10/20/2007 issue. JTV

<b>MSDS Prepared by:</b> ChemTel Inc. 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0585 Website: www.chemtelinc.com	
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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.