

Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Retarder/Printgen MG
General Use: May be used for printing on textile
Product Description: Anti-drying Agent
SDS Number: US-034-MICI
AGENCY: Matsui International Co., Inc.
Address: 1501 West 178th Street, Gardena, CA 90248, USA
Telephone No.: (310) 767-7812
EMERGENCY TELEPHONE NUMBER: (310) 767-7812

2. HAZARDS IDENTIFICATION

CLASSIFICATION

Health Hazard: Not classified.
Physical Hazard: Not classified.
Signal Word: None.
Hazard Statement: None.
Symbol: None.
Precautionary Statements: None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

No	Component(s)	CAS #	Approx. %
A	1,2-Propanediol	57-55-6	99.8
B	Non-hazardous and other ingredients below reportable levels	N/A	0.2

4. FIRST-AID MEASURES

Eye Contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Skin Contact: Wash skin with plenty of water.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Ingestion: No emergency medical treatment necessary.

Notes to Physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Emergency Personnel Protection:
If potential for exposure exists refer to Section 8 for specific personal protective equipment.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic

foams (including AFFF) or protein foams may function, but will be less effective.

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

Special Protective Equipment for Firefighters:

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Unusual Fire and Explosion Hazards:

Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

Hazardous Combustion Products:

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Steps to be Taken if Material is Released or Spilled:

Contain spilled material if possible. Small spills: Any absorbent material. Collect in suitable and properly labeled open containers. Wash the spill site with large quantities of water.

Large spills:

Dike area to contain spill. Pump into suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

Personal Precautions:

Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Keep unnecessary and unprotected personnel from entering the area. Spilled material may cause a slipping hazard.

Environmental Precautions:

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

7. HANDLING AND STORAGE

Handling

General Handling:

Product handled hot may require additional ventilation or local exhaust. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Other Precautions:

Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

Storage

Store away from direct sunlight or ultraviolet light. Keep container tightly closed when not in use. Store in a dry place. Protect from atmospheric moisture. Store in the following material(s): Stainless steel. Aluminum.

Plasite 3066 lined container. 316 stainless steel. Opaque HDPE plastic container.

Shelf life: Use within Maximum storage temperature 24 Months 40C°

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

Component	List	Type	Value
Propylene glycol	WEEL	TWA	10 mg/m3 Aerosol.

Personal Protection

Eye/Face Protection:	Use safety glasses (with side shields). If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.
Skin Protection:	No precautions other than clean body-covering clothing should be needed.
Hand protection:	Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.
Respiratory Protection:	Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.
Ingestion:	Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls

Ventilation:	Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.
--------------	---

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid.
Color:	Colorless
Odor:	Odorless
Odor Threshold:	No test data available
Flash Point:	210.0°F (98.9 °C)
Flammability (solid, gas):	Not applicable.
Flammable Limits In Air	
Lower:	2.6 % Estimated.
Upper:	12.6 % Estimated.
Autoignition Temperature:	371.11C° (700F°)
Vapor Pressure:	0.17hPa
Boiling Point (760 mmHg):	188.02C° (370.44F°)
Vapor Density (air = 1):	Not Available.
Specific Gravity (H2O = 1):	1.04 20C°/20C° Literature.
Freezing Point:	-60C° (-76F°)
Melting Point :	-59C° (-74.2F°)
Solubility in water:	Not available.
(by weight)	
pH	Not applicable

Decomposition:	No test data available
Partition coefficient, n-: octanol /water (log Pow)	Not available.
Evaporation Rate: (Butyl 0.01 Estimated. Acetate = 1)	No test data available
Viscosity:	Not available.

10. STABILITY AND REACTIVITY

Reactivity:	This product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability:	Material is stable under normal condition.
Possibility of hazardous Reactions:	No dangerous reaction known under condition of normal use.
Condition to avoid:	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition Products:	No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation:	Prolonged inhalation may be harmful.
Skin contact:	No adverse effect due to skin contact are exposed.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion:	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Direct contact with eyes may cause temporary irritation.

Acute toxicity:

<u>Acute</u>	Species	Test results
Oral		
LD50	Dog	19g/kg
	Guinea pig	18.4g/kg
	Mouse	23.9g/kg
	Rabbit	18g/kg
	Rat	30g/kg

Estimates for product may be based on additional component data not show.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity: no data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910. 1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity- Not classified.

Single exposure

Specific target organ toxicity- Not classified.

Repeated exposure

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

Further information This product has no known adverse effect on human health.

Ecotoxicity This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12. ECOLOGICAL INFORMATION

Acute toxicity:

<u>Aquatic</u>		Species	Test results
Crustacea	EC50	Water flea(Daphnia magna)	>10000mg/l, 48hours
Fish	LC50	Fathead minnow(Pimephales promelas)	710mg/l, 96hours

Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water(log kow)

1,2-PROPANEDIOL 0.92

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects(e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code the waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues/unused Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions.)

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approval waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

DOT

Not regulated as dangerous goods.

DOT information on packaging may be different from that listed.

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	No
Delayed (Chronic) Health Hazard	No
Fire Hazard	No
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

Component	CAS #	Amount
Propylene glycol	57-55-6	> 99.8 %

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

US. Toxic Substances Control Act

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

CEPA - Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

European Inventory of Existing Commercial Chemical Substances (EINECS)

The components of this product are on the EINECS inventory or are exempt from inventory requirements. Hazard Rating System

NFPA	Health	Flammability	Physical hazard
	0	0	0

HMIS Ratings

Health: 0
Flammability: 0
Reactivity: 0
Protection: C

(0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe)

16. OTHER INFORMATION

Legend

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation
Action Level	A value set by OSHA that is lower than the PEL which will trigger the need for activities such as exposure monitoring and medical surveillance if exceeded.

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of MATSUI International Co., Inc. It relates only to the specific product designated herein, and does not relate to use in combination with any other material or in any process. MATSUI International Co., Inc. assumes no legal responsibility for use of or reliance upon this information.