Date of Preparation:

Page 1 of 5

7/6/09

MATERIAL SAFETY DATA SHEET

Product Name: Modified Methacrylate Resin for SeamlessTM Rapid Cure Two Part Adhesive

Item Numbers MM103, MM109-2R, MM112-2R, MM115-2R, MM117-2R, MM120-2R, MM121-2R, MM123-2R, MM125-2R, MM129-2R, MM142-2R, MM145-2R, MM151-2R, MM152-2R, MM168-2R, MM170-2R, MM171-2R, MM172-2R, and MM182-2R

Product Use/Class: Solid Surface Methacrylate Adhesive (MMA)

MANUFACTURER: Gruber Systems, Inc.

25636 Avenue Stanford Valencia, CA 91355 U.S.A.

EMERGENCY TELEPHONE NUMBERS: 1.800.257.4070; 1.682.518.7400; web: www.gruber-systems.com

Chemtel: 1-800-255-3924 or Int'l +01-813-248-0585

SECTION 2. - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT	
1	Methyl Methacrylate (MMA)	80-62-6	60-80	

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

EXPOSURE LIMITS 8 hrs. TWA (ppm)

ITEM	ACGIH TLV	OSHA PEL	OTHER
1	100ppm	100ppm	100ppm (Canada)
2			
3			

SECTION 3. - HAZARDS IDENTIFICATION

WARNING! FLAMMABLE LIQUID AND VAPOR.

POTENTIAL HEALTH EFFECTS:

EYE:

Moderate eye irritation. Redness. Excess tearing.

SKIN:

Allergic skin reaction. Itching. Moderate skin irritation. Redness.

Modified Methacrylate Resin for SeamlessTM Product Name

Rapid Cure Two-Part Adhesive

INGESTION:

Toxicity by ingestion is not likely to occur

INHALATION:

Moderate respiratory tract irritation. Shortness of breath. Coughing.

CHRONIC:

Detailed information provided in section 11.

CONDITIONS AGGRAVATED BY EXPOSURE:

Respiratory disorders. Skin disorders. Eye disorders

SECTION 4. - FIRST AID MEASURES

Immediately flush eyes with water for at least 20 minutes. Get immediate medical attention.

Wash thoroughly with soap and water. Discard contaminated clothing. Do not use organic solvents. If irritation occurs, get medical attention.

INHALATION:

Remove person to fresh air or apply artificial respiration if not breathing. Get medical attention if short of breathe or if respiratory symptoms develop.

INGESTION:

Give 1-2 glasses of milk or water to conscious person. Get immediate medical attention. DO NOT INDUCE VOMITING.

SECTION 5. - FIRE FIGHTING MEASURES

2.1 MMA, Upper 12.5 for MMA 51F (TCC) Flashpoint and Method: Flammable Limits:

NA

Autoignition Temperature:

EXTINGUISHING MEDIA:

Flammable liquid, insoluble in water.

Use DRY chemical powder

SPECIAL FIRE FIGHTING INSTRUCTIONS:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

HAZARDOUS COMBUSTION PRODUCTS:

Oxides of carbon and nitrogen. Hydrogen cyanide. Methylene bisphenyl isocyanate. Hydrocarbons. Smoke. Cyclopentanone. Butanediol. Tetrahydrofuran

Date of Preparation:

Page $\frac{2}{}$ of $\frac{5}{}$

Product Name Modified Methacrylate Resin for SeamlessTM

Rapid Cure Two-Part Adhesive

SECTION 6. - ACCIDENTAL RELEASE MEASURES

Date of Preparation: 7/6/0

Page ³ of ⁵

Remove sources of ignition. Use with ventilation. Dike area to prevent spreading. Absorb on vermiculite, sand or other inert absorbing material. Dispose of as chemical waste in accordance with current local, state, and federal regulations. Do not discharge into water. Incineration recommended. Wash spill area with strong detergent. After proper mixing of resin and activator sides, the material will polymerize into a cured solid state which can be treated as a nonhazardous solid. Applicable CERCLA/RCRA waste code:0001 (ignitability) U162 (MMA)

SECTION 7. - HANDLING AND STORAGE

HANDI ING:

Avoid prolonged or repeated breathing of vapor. Avoid contact with skin and eyes. Wash hands before smoking or eating.

STORAGE:

Avoid storage over 100F, contamination with incompatible materials. Store in cool place. Do not store in direct sunlight. Recommended storage in flammable material containment area

SECTION 8. - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Use local exhaust ventilation if the potential for airborne exposure exists

PERSONAL PROTECTION:

RESPIRATORY PROTECTION:

Use NIOSH approved respirator if there is potential to exceed any exposure limit(s).

 $\textbf{SKIN PROTECTION:} \ \frac{\textbf{Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact}.$

EYE PROTECTION:

Chemical splash goggles or safety glasses with side shields.

OTHER PROTECTIVE EQUIPMENT: NA

SECTION 9. - PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure: 29mm at 20C Vapor Density: >1 Heavier than air, 3.5 for MMA

Solubility in H20: Slight Specific Gravity: 1.57

Boiling Point: Freezing Point: NA

Physical State: Liquid pH: NA

Odor: Pungent. Acrylic Appearance: Clear gel liquid

VOC:

SECTION 10. - STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

No known conditions to avoid. Oxidizing agents, Alkalis, Moisture. Strong acids. Strong bases. Reducing agent. Ultraviolet radiation. Amines

HAZARDOUS POLYMERIZATION:

May occur. Excessive aging. Excessive heat. Polymerization catalysts. Oxygen-free atmosphere. Inhibitor depletion. Direct sunlight.

HAZARDOUS DECOMPOSITION PRODUCTS: None known

Modified Methacrylate Resin for Seamless $^{\text{TM}}$ Product Name

Rapid Cure Two-Part Adhesive

Date of Preparation:

SECTION 11. - TOXICOLOGICAL INFORMATION

PRODUCT TOXICOLOGY DATA: Not available

TROBUCT TOXICOLOGY BATA.		Carcinogen		
Ingredients		NTP	IARC	OSHA
Methyl methacrylate		No	N/A	No

Ingredients	Target Organ and other health effects
Methyl methacrylate	Allergen. Irritant. Nervous System. Respiratory. Kidney. Liver

SECTION 12. - ECOLOGICAL INFORMATION

Not available

SECTION 13. - DISPOSAL CONSIDERATIONS

Dispose according to EPA and local governmental regulations. EPA Hazardous waste # 0001;U162;D003 DISPOSAL METHOD:

SECTION 14. - TRANSPORT INFORMATION

DOT (49 CFR 172)

PROPER SHIPPING NAME: Adhesives HAZARD CLASS: 3

IDENTIFICATION NUMBER: UN1133 **PACKING GROUP:**

PROPER SHIPPING NAME: Consumer Commodity EXCEPTIONS: Single unit less than or equal to 1 liter

CLASS / DIVISION: ORM-D

INTERNATIONAL AIR TRANSPORTATION (IATA)

PROPER SHIPPING NAME: Adhesives CLASS / DIVISION: 3

IDENTIFICATION NUMBER: UN1133 PACKING GROUP:

EXCEPTIONS: Consumer Commodity, Class 9, ID 8000, less than 500 ml.

Date of Preparation: 7/0

SECTION 15. - REGULATORY INFORMATION

Page $\frac{5}{}$ of $\frac{5}{}$

TSCA (Toxic Substance Control Act):

All components are listed on or exempt from listing on the Toxic Substances Control Act Inventory.

CERCLA (Comprehensive Emergency Response, Compensation, and Liability Act):

SARA TITLE III (Superfund Amendments and Reauthorization Act):

313 Reportable Ingredients:

Methyl Methacrylate

CANADIAN INVENTORY STATUS:

All components are listed on or are exempt from listing on the Canadian Domestic Substances List

CALIFORNIA PROPOSITION 65:

This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm

SECTION 16. - OTHER INFORMATION

NFPA Health $\frac{2}{}$ Fire $\frac{3}{}$ Reactivity	y 2 Special	None		
Hazardous Materials Information System Health $\frac{2}{2}$ Flammability $\frac{3}{2}$	stem (HMIS) Ratir Reactivity 2	Ū	ective Equipment:	See section 8
REVISION SUMMARY: Change to 16 section format. Undate Contact info Part Numbers		12/30/08	updated 45025F res	sin

This information is furnished without warranty, representation, or license of any kind, except that this information is accurate to the best of the Supplier's knowledge, or is obtained from sources believed by the Supplier to be accurate. No warranty is expressed or implied regarding the accuracy of this information or the results to be obtained from its use thereof. The Supplier assumes no responsibility for injuries proximately caused by use of the Material if reasonable safety procedures are not followed as stipulated in this Data Sheet. Additionally, the Supplier assumes no responsibility for injuries proximately caused by abnormal use of the Material even if reasonable safety procedures are followed. Buyer assumes the risk in its use of the Material.

© 2009 by Gruber Systems, Inc. All rights reserved. Subject to change without notice. Seamless is a trademark of Gruber Systems.