ColorHues™
Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Rowmark, Inc.
2040 Industrial Drive
Findlay, OH 45840
USA

EMERGENCY PHONE NUMBERS:
Medical: 911
Poison Control: 800-589-3897

Telephone Numbers	Phone Number	Available Hours
Rowmark Customer Service	1-877-ROWMARK	7:00am-5:00pm EST
International	419-425-8974	

Product Name: ColorHues™
Product Synonym(s): Acrylic Cast Sheet
Chemical Family: Acrylic Polymer
Chemical Formula:
Chemical Name: Mixture
EPA Reg Number:
Product Use: Signage, Other

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS Registry Number	Typical Wt. %	OSHA
Methyl methacrylate	80-62-6	< 0.5	Y

Description:
High molecular weight acrylic. Acrylic polymer based on methyl methacrylate.

The substance(s) marked with a "Y" in the OSHA column are identified as hazardous chemicals according to the criteria of the OSHA Hazardous Communication Standard (29 CFR 1910.1200).

While this material is not classified as hazardous under Federal OSHA regulations, this MSDS contains valuable information critical to the safe handling and proper use of this product. This MSDS should be retained and available for employees and other users of this product.

The following information are potential hazards made in the sublimation process. These materials were detected in worse case scenario in an un-vented room. The following materials were detected in ppb quantities, much less than 1 ppm (1 ppm=1,000 ppb).

3. HAZARDS IDENTIFICATION

Emergency Overview:
APPEARANCE: Clear, opal color or transparent tinted sheet; Characteristic odor
PROCESS HAZARDS: Polymers partly degrade at their processing temperature.

The following values apply to substances which may be involved during thermal processing.

HAZARDOUS INGREDIENT(S)	LTEL 8hr TWA ppm	LTEL 8hr TWA mg/m3	STEL ppm	STEL mg/m3	Notes
Methyl methacrylate (Methacrylic acid methyl ester)	50	208	100	416	OES

Abbreviations:
OES: Occupational Exposure Standard
LTEL: Long Term Exposure Limit
STEL: Short Term Exposure Limit.
TWA: Time weighted average.
SK: Can be absorbed through skin.

Potential Health Effects:
EYE: Solid or dust may cause irritation or corneal injury due to mechanical action.

INGESTION: Low toxicity under normal conditions of handling and use.

SKIN/INHALATION: Thermal decomposition will involve toxic, irritant and flammable vapors and products will include methyl methacrylate under normal conditions. Machining operations such as laser or band saw cutting can give rise to toxic and corrosive fumes and/or strong odors. Care should be taken during thermoforming to ensure that the product is not exposed to temperatures exceeding 200 Deg C. Certain machining operations, eg laser cutting, can give rise to toxic and corrosive fumes. Adequate ventilation MUST be used.

4. FIRST AID MEASURES

IF IN EYES: Flush eyes with plenty of water; remove contact lenses after the first 1-2 minutes then continue flushing for several minutes. Only mechanical effects expected.

IF IN CONTACT WITH SKIN: Wash with soap and water. If molten material comes in contact with the skin, do not apply ice but cool under ice water or running stream of water. DO NOT attempt to remove the material from skin. Removal could result in severe tissue damage. If symptoms develop, obtain medical attention.

IF INHALED: Move person to fresh air away from exposure and keep patient warm and at rest; if effects occur, consult a physician.

IF INGESTED: Don't induce vomiting. Obtain medical attention if effects occur.

5. FIRE FIGHTING MEASURES

Fire and Explosive Properties

Flash Point:		N/A
Flammable Limits:	Upper:	N/A
	Lower:	N/A

EXTINGUISHING MEDIA:
Use water spray, foam, dry powder or CO2 for chip fires. DO NOT USE Halogenated Agents.

FIRE FIGHTING INSTRUCTIONS:
Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

FIRE AND EXPLOSION HAZARDS:
Combustion will involve toxic, irritant and flammable vapors. Dust dispersion in air can be explosive and can generate explosive gases if in contact with water.

6. ACCIDENTAL RELEASE MEASURES

PROTECT PEOPLE: Chips or dust may present a slipping hazard. Do not allow build up of chips or dust or contact of chips/dust with water.

CLEANUP: Sweep up chips or dust in a waste disposal container.

7. HANDLING AND STORAGE

HANDLING: Good housekeeping and controlling dusts are necessary for safe handling of product. Workers should be protected from the possibility of contact with molten resin during fabrication. Large masses of molten polymer held at elevated temperatures for extended periods of time may auto-ignite. Dust is a fire hazard.

Handle sheets with care, especially in wind or outdoors, as they are heavy and unwieldy. Chips or breaks in the sheet can be sharp and cut.

Take precautions against static discharges when handling this product.

STORAGE: Keep away from heat. Store vertically on A-frames below 40 Deg C. Store life indefinite under specified storage conditions.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS: Adequate ventilation and appropriate local extraction in work area is needed due to dust or vapors created during fabrication. Assess potential extent of exposure to determine whether further protection is required.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

EYE/FACE PROTECTION: Safety glasses or face shield should be used. If exposed to dust, chemical glasses may be required.

SKIN PROTECTION: No precautions other than clean body-covering clothing should be needed. Wear suitable gloves to protect from the possibility of sharp edges and use insulated gloves for thermal protection, when desired.

RESPIRATORY PROTECTION: In dusty atmospheres, use an approved respirator. A suitable dusk mask or respirator with filter type P (EN141/EN143) may be appropriate for processing. Use a mask with filter type A for higher vapor levels above the exposure limit.

OTHER: If engineering controls are inadequate, wear suitable protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/ODOR: Odorless opal tint, color or clear sheet with sold viscosity. Sublimation or engraving process can create a characteristic odor.

BOILING POINT: N/A

MELTING POINT: N/A

FREEZING POINT: N/A

VAPOR PRESSURE: N/A

PARTITION COEFFICIENT: N/A

DENSITY: 1.19 g/ml

FLASH POINT (CELCIUS): 11.5 (MMA). Sheet has no flash point.

AUTO IGNITION TEMPERATURE (CELCIUS): 421 (MMA).

FLAMMABLE LIMITS: N/A

PH: N/A

EXPLOSIVE/OXIDISING PROPERTIES: N/A

SPECIFIC GRAVITY: 2.5-2.9

SOFTENING POINT: >100° C

SOLUBILITY IN WATER: Insoluble

SOLUBILITY (OTHER): Soluble in most organic solvents, acetone and chlorinated hydrocarbons.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

INCOMPATIBILITY: Reacts violently with halogenated hydrocarbons and oxidizers to produce heat. Small particles can react with water

HAZARDOUS DECOMPOSITION PRODUCTS: Methyl methacrylate, traces of Acrolein.

CONDITIONS TO AVOID: Do not allow build up of chips or dust or contact of them with water

11. TOXICOLOGY INFORMATION

No data available. No evidence of skin effects with normal handling. Unlikely hazard if accidentally swallowed.

12. ECOLOGICAL INFORMATION

MOVEMENT, PARTITIONING, DISTRIBUTION: Medium tonnage material produced in partially contained systems. Solid with low volatility and essentially insoluble in water. The product has low potential for bioaccumulation/ low mobility in soil and will sink/remain in sediment.

DEGRADATION & PERSISTENCE: This water insoluble polymeric solid is expected to be inert in the environment. No evidence of surface photo degradation in soil or water.

ECOTOXICITY: Not expected to be acutely toxic to aquatic organisms, but chips may mechanically cause adverse effects if ingested by waterfowl or aquatic life. Unlikely to pose effects on effluent treatment systems.

13. DISPOSAL CONSIDERATIONS

Disposal must be in accordance with applicable governmental regulations.

14. TRANSPORT INFORMATION

No data available. Not dangerous for transport.

15. REGULATORY INFORMATION

(Not meant to be all-inclusive – selected regulations represented)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

U.S. REGULATIONS

No data available

CANADIAN REGULATIONS

No data available

EC CLASSIFICATION

Under the Classification, Packaging and Labeling of Dangerous Substances Regs, 1984, this material is not dangerous for supply or conveyance.

16. OTHER INFORMATION

NFPA HAZARD RATING (National Fire Protection Association):

Fire
1
Health 0 0 Reactivity
–
Special

FIRE: Materials that must be preheated before ignition can occur.

HEALTH: Materials that under emergency conditions would offer no hazard beyond that of ordinary combustible materials.

REACTIVITY: Materials that in themselves are normally stable, even under fire exposure conditions.

REASON FOR ISSUE: