



**CROWN**  
**TECHNOLOGY, LLC**

Preformed Thermoplastic Pavement Markings

**Tuff-Mark®**

available with

**Tuff-Grip®**

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## SAFETY DATA SHEET

### SECTION 1 – IDENTIFICATION

<b>Product Name:</b>	Tuff-Mark® and Tuff-Mark® with Tuff-Grip® Preformed Yellow Alkyd Thermoplastic Sheet
<b>Manufacturer:</b>	Crown Technology, LLC 35 Industrial Park Drive Woodbury, GA 30293
<b>Emergency Phone Number:</b>	(706) 553-9500
<b>Issue Date:</b>	06/12/2017
<b>Product Use:</b>	Thermoplastic Pavement Marking Material

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### SECTION 2 – HAZARDS IDENTIFICATION

<b>Physical Form/Appearance:</b>	Solid Yellow Plastic Sheet
<b>Primary Routes of Absorption:</b>	N/A
<b>Skin:</b>	Not applicable for cold form. Heated thermoplastic can cause serious burns to unprotected skin.
<b>Eye and Inhalation:</b>	Not applicable for cold form. Overexposure to hot fumes of molten material or dust from grinding or cutting may cause irritation to the eyes and respiratory tract. As always, care should be taken not to breathe hot fumes of any type. If such inhalation occurs, remove to a well ventilated area.

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## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

<b><u>Ingredient:</u></b>	<b><u>CAS No.</u></b>	<b><u>% Wt</u></b>
Alkyd Resin	68333-62-0	0 - 27
Maleic Modified Rosin Ester	8050-26-8	0 - 27
Calcium Carbonate	471-34-1	20 - 60
Titanium Dioxide	13463-67-7	0 - 14
Glass Oxide	65997-17-3	20 - 45
Polyamide Resin	NJTSRN-8769	5 - 15
Alumina	1344-28-1	0 - 15
Pigment Yellow 83	5567-15-7	0 - 5

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## SECTION 4 – FIRST AID MEASURES

<b>Skin:</b>	For exposure to molten material cool immediately under running water. Do not apply ice as this may cause frost bite. Continue to cool under running water for an extended period of time. Do not attempt to remove the plastic as, in most cases the skin is also removed, resulting in severe tissue damage. Immediately call a physician and receive medical attention.
<b>Eye:</b>	For exposure to dust from grinding or cutting wash eyes with running water. See a physician if irritation persists. For exposure to molten material flush eyes with running water. Call a physician.
<b>Inhalation:</b>	For exposure to fumes or dust from grinding or cutting remove to a well ventilated area. Call a physician if irritation persists.

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## SECTION 5 – FIRE FIGHTING MEASURES

<b>Flash Point:</b>	475°F COC
<b>Extinguishing Media:</b>	Dry Chemical, CO <sub>2</sub> , Foam
<b>Special Fire Fighting Procedures:</b>	Toxic emissions may be released in a fire. Wear self-contained breathing apparatus
<b>Unusual Fire and Explosion Hazards:</b>	None

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## SECTION 6 – ACCIDENTAL RELEASE MEASURES

N/A

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## SECTION 7 – HANDLING AND STORAGE

### Handling:

During normal application local exhaust should be provided in unventilated work areas. Do not eat, drink, or smoke when using product. Precautions should be taken to prevent water damage by using the appropriate coverings. Wash thoroughly before eating, drinking, or smoking after using/handling material. Do not heat material above 450°F. Keeping water nearby during application is always recommended. Avoid breathing fumes from molten material or dust from grinding or cutting.

### Storage:

Always store material in a cool dry place. If stored outside, always cover material to prevent damage which may be caused by moisture.

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## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

### Application Precautions –

#### Ventilation:

Provide adequate local exhaust ventilation to reduce exposure to dust and fumes to maintain concentrations below acceptable exposure limits (see below). Ventilation for the application equipment must be provided to prevent excessive pressure and concentration of fumes which could lead to material flashing at low temperatures.

### Personal Protective Equipment (PPE) –

#### Eyes:

Goggles, face shield

#### Skin:

Heat resistant gloves and clothing to help prevent injury from molten material. This includes long sleeve shirt, long pants, socks, hard sole shoes, and hat.

#### Respiratory:

NIOSHA/MSHA approved respirator as necessary. An organic vapor/dust-filtering respirator is recommended. The exact selection of a respirator should be based on the concentration of air contaminate present while using the below exposure limit guidelines (PEL).

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## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical Appearance:</b>	Solid Yellow Plastic Sheet
<b>Boiling Point:</b>	Not applicable
<b>Melting Point:</b>	105°C-112°C (Ring & Ball Softening Point)
<b>Specific Gravity:</b>	2.1 (dry plastic sheet)
<b>Vapor Pressure (mm Hg):</b>	Not applicable
<b>VOC (%):</b>	Negligible
<b>Evaporation Rate:</b>	Not applicable
<b>Vapor Density:</b>	Not applicable
<b>Solubility in Water:</b>	Not applicable
<b>Percent Volatile:</b>	Not applicable
<b>Flash Point:</b>	>= 475°F (COC)

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## SECTION 10 – STABILITY AND REACTIVITY

<b>Stability:</b>	Stable
<b>Hazardous Polymerization:</b>	None
<b>Conditions and Materials to Avoid:</b>	Avoid temperatures above 450°F and strong oxidizing agents
<b>Hazardous Decomposition Products:</b>	CO, CO <sub>2</sub> and, aliphatic aldehydes.

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## SECTION 11 – TOXICOLOGICAL INFORMATION

See section 15 – Regulatory Information

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## SECTION 12 – ECOLOGICAL INFORMATION

Not known

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## SECTION 13 – DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method:</b>	Disposal should be made in accordance with Federal, State, and Local regulations. See section 15 – Regulatory Information
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## SECTION 14 – TRANSPORT INFORMATION

See section 15 – Regulatory Information

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## SECTION 15 – REGULATORY INFORMATION

<b>Department of Transportation:</b>	Non Regulated
<b>Toxic Substance Control Act:</b>	All components of thermoplastic traffic markings are listed in the TSCA Inventory of Chemical Substances.
<b>SARA TITLE III:</b>	This product does not contain chemicals subject to reporting requirements of SARA Title III, Section 313 and of 40CFR372.
<b>RCRA Statement:</b>	This material is defined as non-hazardous when tested under 40 CFR 261 (see Table 1 of 40 CFR 261.24).

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## SECTION 16 – OTHER INFORMATION

<b>NFPA</b>	Health: 0	Flammability: 1	Reactivity: 0	Special Hazards: None
<b>HMIS</b>	Health: 0	Flammability: 1	Physical Hazard: 0	Personal Protective Equipment: X

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**The information provided is in compliance with the Federal Hazard Communication standard 29CFR1910.1200, to give warning of actual and assumed hazards, and to inform of generally applicable precautions and control measures which are known to Crown Technology, LLC. Hazard information is based on available scientific evidence, but is not always obtained from sources under the direction or control of Crown Technology, LLC. Crown Technology, LLC makes no warranty or representation that the information is accurate, reliable, complete or representative and Buyer may rely thereon only at Buyer's own risk. Crown Technology, LLC warrants only that it has made no effort to censor, other than trade secret information or to conceal hazards of its products. The data shown on these pages in no way modifies, amends or enlarges any specification or warranty.**

**Revision Date:** 06/12/2017