



PREFORMED THERMOPLASTIC SAFETY DATA SHEET

Revised Date: 10-3-2018 Supersedes: 07-23-2015

1. Identification

Product Identifier	PREFORMED THERMOPLASTIC
Synonyms	Thermoplastic Road Marking/Traffic Marking- Torch-Applied
Recommended use	Traffic Marking
Recommended restrictions	None known
Manufacturer/Supplier	Ozark Materials, LLC 591 Glendale Ave. Greenville, AL 36037
General Assistance	334-213-2995
E-Mail	contact@ozarkmaterials.net
Contact Person	Derron Henderson

Emergency Telephone 770-355-4477

2. Hazard(s) Identification

GHS CLASSIFICATION

Health Hazards	Cold Form None Known	Molten/Heated Form Acute toxicity, inhalation Serious eye damage/eye irritation Germ cell mutagenicity Carcinogenicity Specific target organ toxicity, single exposure; Respiratory tract irritation Specific target organ toxicity, repeated exposure	Category 3 Category 2A Category 2 Category 1A Category 3 Category 1
Environmental	Cold Form Acute Toxicity Chronic Toxicity Physical hazards	Cold Form None Known None Known Cold Form None Known	Molten/Heated Form Not Available Not Available Molten/Heated Form None Known
Label elements	None Required		
Signal word	Danger		
Hazard statements	Cold Form H315: Causes skin irritation H320: Causes eye irritation H333: May be harmful if inhaled	Molten/Heated Form H314: Causes severe skin burns and eye damage H332: Harmful if inhaled H335: May cause respiratory irritation. H341+ H350: Suspected of causing genetic defects: May cause cancer H372: Causes damage to organs through prolonged or repeated exposure	
Precautionary statements	Prevention	P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood.	

	P260: Do not breathe dust/fume/gas/mist/vapors/spray
	P264: Wash skin thoroughly after handling.
	P270: Do not eat, drink or smoke when using this product
	P271: Use only outdoors or in a well-ventilated area
	P280: Wear protective gloves/protective clothing/eye protection/face protection.
Response	P304: IF INHALED: Remove person to fresh air and Keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
	P305: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337 + P313 IF EYE IRRITATION PERSISTS: Get medical advice/attention
	P308 + P313: IF EXPOSED or CONCERNED: Get medical advice/attention. Get medical advice or attention if you feel unwell.
Storage	P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
	P405: Store locked up.
Disposal	P501: Dispose of contents/ container to an approved waste disposal plant.
Hazard(s) not otherwise classified (HNOC)	
	Cold Form
	Molten/Heated Form
	None Known
	Molten/Heated product presents a thermal hazard.

3. Composition/information on ingredients

Mixtures

Chemical Name (Common / Other Names)	CAS number	%
Calcium carbonate	1317-65-3	30-45
Titanium dioxide	13463-67-7	0-15
Carbon black	1333-86-4	<3
Barium sulfate	7727-43-7	0-2
Quartz	14808-60-7	0-2

The criteria for listing components in the composition are as follows: Carcinogens are listed when present at 0.1% or greater; components, which are otherwise hazardous according to OSHA, are listed when present at 1.0% or greater. Non-hazardous components may be listed at 3.0% or greater if not proprietary in nature. This is not intended to be complete compositional disclosure. Refer to section 15 for applicable states right-to-know and other regulatory information.

4. First-aid measures

Inhalation	<i>Not applicable for Cold Form.</i> Overexposure to hot fumes of molten material or dust from grinding or cutting may cause irritation to the respiratory tract.
Skin contact	<i>Not applicable for Cold Form.</i> Heated thermoplastic can cause serious burns to unprotected skin. If molten material contacts your skin, flush with plenty of water and seek medical attention.

Do not attempt to remove the material from your SKIN!

Eye contact *Not applicable for Cold Form.* Overexposure to hot fumes of molten material or dust from grinding or cutting may cause irritation to the eyes.

Ingestion Rinse mouth thoroughly.

Never give anything by mouth to a victim who is unconscious

Chronic (long-term) effects Prolonged or repeated contact may cause irritation.

5. Fire-fighting measures

Suitable extinguishing media	Water spray, dry chemical, CO2, Foam
Unsuitable extinguishing media	Strong oxidizing agents.
Specific hazards arising from the chemical	Carbon Monoxide.
Special protective equipment and precautions for firefighters	Wear self-contained breathing apparatus in the positive mode to avoid smoke and fumes. Avoid direct contact with water to avoid splattering of molten plastic.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 of the SDS for Personal Protective Equipment.
Methods and materials for containment and cleaning up	Granular material may be scooped up or swept. Allow molten material to cool and then dispose of in accordance with Federal, State and Local Regulations.

7. Handling and storage

Precautions for safe handling	Avoid contact with the torch flame and molten material. Avoid inhaling dust particles. Wear protective clothing such as leather boots or work shoes, long pants, heat-resistant gloves, eye protection or face shield, and a safety vest when applying product. Wash hands after use. Do NOT eat, drink, or smoke in work areas.
Conditions for safe storage, including any incompatibilities	Keep in a ventilated area when possible. Store in a cool, dry area and away from acids or oxidizers.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Calcium carbonate (CAS#1317-65-3)	PEL (TWA)	15 mg/m3 (total dust), 5 mg/m3 (respirable)
Titanium dioxide (CAS#13463-67-7)	PEL (TWA)	15 mg/m3
Carbon black (CAS#1333-86-4)	PEL (TWA)	3.5 mg/m3

Barium sulfate (CAS#7727-43-7)	PEL (TWA)	15 mg/m3 (total dust), 5 mg/m3 (respirable)
Calcium carbonate (CAS#1317-65-3)	PEL (TWA)	15 mg/m3 (total dust), 5 mg/m3 (respirable)
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)		
Components	Type	Value
Calcium carbonate (CAS#1317-65-3)	8-hour TWA	15 mg/m3 (total dust), 5 mg/m3 (respirable)
Titanium dioxide (CAS#13463-67-7)	8-hour TWA	15 mg/m3 (total dust)
Carbon black (CAS#1333-86-4)	8-hour TWA	3.5 mg/m3
Barium sulfate (CAS#7727-43-7)	8-hour TWA	15 mg/m3 (total dust), 5 mg/m3 (respirable)
US. OSHA Table Z-3 Mineral dusts (29 CFR 1910.1000)		
Quartz (CAS#14808-60-7)	TWA	10 mg/m3 (respirable) %SiO ₂ +2, 30 mg/m3 (Total dust) %SiO ₂ +2

US. OSHA Table Z-2 (29 CFR 1910.1000)

None of the components in this product is listed

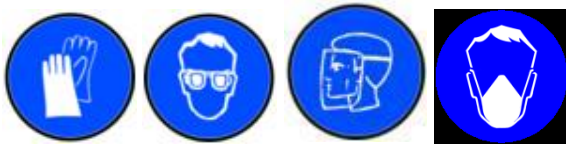
US. ACGIH Threshold Limit Values

Components	Type	Value
Titanium Dioxide (CAS#13463-67-7)	TLV	10 mg/m3 (total dust)
Carbon Black (CAS#1333-86-4)	TLV	3 mg/m3 (Inhalable)
Barium Sulfate (CAS#7727-43-7)	TLV	5 mg/m3
Titanium Dioxide (CAS#13463-67-7)	TLV	10 mg/m3 (total dust)

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Calcium Carbonate (CAS#1317-65-3)	REL (TWA)	10 mg/m3 (total dust), 5 mg/m3 (respirable)
Carbon Black (CAS#1333-86-4)	REL (TWA)	3.5 mg/m3
Barium Sulfate (CAS#7727-43-7)	REL (TWA)	10 mg/m3 (total dust), 5 mg/m3 (respirable)
Quartz (CAS#14808-60-7)	REL (TWA)	Ca 0.05 mg/m
Appropriate engineering controls	Local exhaust recommended when generating excessive levels of airborne dust/vapors when heating plastic.	

Individual protection measures, such as personal protective equipment



Eye/face protection

Safety glasses; Eye goggles covered with face shield when handling molten plastic.

Skin protection

Hand protection

Avoid exposures – obtain special instructions before use. Wear protective gloves.

Other

Wear heat resistant protective clothing & gloves when handling molten plastic. Always carry first aid kit, water & ice during application. *Wear protective clothing such as leather boots or work shoes, long pants, heat-resistant gloves, eye protection or face shield, and a safety vest when applying product.

Respiratory protection	If needed, use an approved/certified respirator or equivalent.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary such as Heat-Resistant Gloves
General hygiene considerations	Always wash hands after use & before eating, drinking or any other personal activity. Avoid contact with the torch flame and molten material.

9. Physical and chemical properties

Appearance

Physical state	Solid
Form	Granular
Colors	White, Yellow, Black, Blue, Red, Green
Odor	Alkyd oil
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	100-135°C (212-275°F) (Softening Point, R&B Method)
Initial boiling point and boiling range	Not Available
Flash point	>246.11 °C (>475 °F)(Closed Cup)
Evaporation rate	Not Available
Flammability (solid, gas)	Not Available
Upper/lower flammability or explosive limits	
Flammability limit – lower (%)	Not Available
Flammability limit – upper (%)	Not Available
Explosive limit - lower (%)	Not Available
Explosive limit - upper (%)	Not Available
Vapor pressure	Not Available
Vapor density	Not Available
Relative density (Specific gravity)	1.75-2.25
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Viscosity	Not Available
Volatile Organic Compounds	Not Available

10. Stability and reactivity

Reactivity	Not generally reactive under normal conditions
Chemical stability	Stable at <246.11 °C (<475 °F)
Possibility of hazardous reactions	Polymerization will not occur
Conditions to avoid	Temperatures above 260 °C (500 °F), incompatible materials
Incompatible materials	Acids, alum, ammonium salts, mercury & hydrogen, fluorine, magnesium
Hazardous decomposition Products	Carbon Monoxide, Carbon Dioxide

11. Toxicological information

Information on likely routes of exposure	
Ingestion	Do not ingest.

Inhalation	Harmful if inhaled. Overexposure may cause temporary respiratory irritation.
Skin contact	Moderate irritation, thermal burns may occur from molten material.
Eye contact	Particulates may cause irritation to the eyes.
Symptoms related to the physical, chemical & toxicological characteristics	Respiratory tract irritation, thermal burns from molten material, chronic exposure may pose a silicosis risk.
Delayed & immediate effects & chronic effects from short-& long-term exposure	Redness, pain, and inflammation of the eyelids, coughing, sneezing, dyspnea, respiratory tract irritation, chronic rhinitis.
Numerical measures of toxicity	
Components	Test Species Test Results
Titanium Dioxide (CAS# 13463-67-7)	Oral LD50 Rat > 5000 mg/kg
	Inhalation LC50 Rat >3.43 mg/l
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	No data available.
Skin sensitization	No data available.
Germ cell mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	May cause cancer.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Titanium dioxide (CAS#13463-67-7)	Group 2B "Possibly Carcinogenic to Humans".
Carbon Black (CAS#1333-86-4)	Group 2B "Possibly Carcinogenic to Humans".
Quartz (CAS# 14808-60-7)	Group 1 "Carcinogenic to Humans".
NTP Report on Carcinogens	
Quartz (CAS# 14808-60-7)	Group Known "Known to be a Human Carcinogen".
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
None of the components in this product is listed.	
Reproductive toxicity	No data available.
Specific target organ toxicity -single exposure	May cause respiratory irritation.
Specific target organ toxicity -repeated exposure	Causes damage to lungs through prolonged or repeated exposure.
Aspiration hazard	No data available.

12. Ecological information

Numerical measures of toxicity	
Components	Test Species Test Results
Titanium dioxide (CAS# 13463-67-7)	Crustacea EC50 Water flea (Daphnia magna) >100 mg/l, 48 Hours
Persistence and degradability	Not available
Bioaccumulative potential	Not available
Mobility in soil	Not available
Other adverse effects	None known

13. Disposal considerations

Disposal instructions	Dispose of in accordance with applicable Federal, State and Local Regulations.
Hazardous waste code	
US RCRA Hazardous Waste U List	Not available.
Contaminated packaging	Container must be disposed of in accordance with local, state and federal regulations.

14. Transport information

DOT, IATA, and IMDG

UN number	Not regulated for transport.
Environmental hazards	
Marine pollutant	None known
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpart. D)

None of the components in this product is regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Calcium carbonate (CAS#1317-65-3)

Titanium dioxide (CAS#13463-67-7)

Carbon black (CAS#1333-86-4)

Barium sulfate (CAS#7727-43-7)

Quartz (CAS#14808-60-7)

CERCLA Hazardous Substance List (40 CFR 302.4)

None of the components in this product are regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard	Yes
	Delayed Hazard	Yes
	Fire Hazard	Yes
	Pressure Hazard	No
	Reactivity Hazard	No

SARA 302 Extremely hazardous substance None of the components in this product are listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting) None of the components in this product are listed.

SARA Title III Classification:

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

None of the components in this product is listed

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

None of the components in this product is listed

Safe Drinking Water Act (SDWA)

None of the components in this product is listed

US State regulations

WARNING: This product contains chemicals known to the state of California to cause cancer.

Massachusetts RTK – Substance List

Calcium carbonate (CAS #1317-65-3)

Titanium dioxide (CAS #13463-67-7)

New Jersey Worker and Community Right-to-Know Act

Carbon black (CAS #1333-86-4)
Barium sulfate (CAS # 7727-43-7)
Quartz (CAS #14808-60-7)

Pennsylvania Worker and Community Right-to-Know Law

US. California Proposition 65

Carcinogens & Reproductive Toxicity (CRT):
Substance List

Carbon black (CAS #1333-86-4)
Quartz (CAS #14808-60-7)

Canada regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR).

WHMIS classification Materials

D2A

Causing Other Toxic Effects (very toxic)



International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non- Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemical List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	United States & Puerto Rico	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

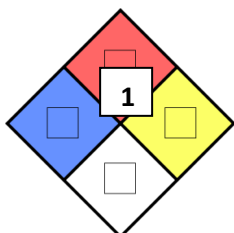
16. Other information, including date of preparation or last revision

Issue date 07-23-2015

Revision date 3-Oct-2018

Version # 1

NFPA Ratings



References

ACGIH: Documentation of the Threshold Limit Values and Biological Exposure indices

ECHA: European Chemicals Agency

HSDB: Hazardous Substances Data Bank

IARC: International Agency for Research on Cancer

NIOSH: The National Institute for Occupational Safety and Health

NTP: National Toxicology Program

NLM: Hazardous Substances Data Base

OECD : Organization for Economic Co-operation and Development

OSHA: Occupational Safety and Health Administration

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