

Material Safety Data Sheet

Material Name: MirroFlex Structures and Flat Sheets - Fire Retardant Series

*** Section 1 - Chemical Product and Company Identification ***

Manufacturer Information

Advanced Technology, Inc
6106 W. Market Street
Greensboro, NC 27409

Phone: 336-668-0488
Fax: 336-668-0713

*** Section 2 - Hazards Identification ***

Emergency Overview

No hazards expected under normal product use conditions.

Potential Health Effects: Eyes

Not expected under normal use conditions. Dusts generated from cutting may cause irritation.

Potential Health Effects: Skin

Not expected under normal use conditions. Dusts generated from cutting may cause irritation.

Potential Health Effects: Ingestion

Not a likely route of exposure under normal product use conditions.

Potential Health Effects: Inhalation

Not expected under normal use conditions. Dusts generated from cutting may cause irritation.

HMIS Ratings: Health: 1 Fire: 0 HMIS Reactivity 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component
Not Available	Metallic Foil
24981-14-4	Ethene, fluoro-, homopolymer
Not Available	Polyethylene Masking
9002-86-2	PVC (Chloroethylene, polymer)
68584-75-8	2-Propenoic acid, 2-methyl-, methyl ester, polymer with oxiranylmethyl 2-methyl-2-propenoate, ammonia-modified
1333-86-4	Carbon black
1309-37-1	Iron oxide
13463-67-7	Titanium dioxide
104810-48-2	Poly(oxy-1,2-ethanediyl), α -[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]- ω -hydroxy-
104810-47-1	Poly(oxy-1,2-ethanediyl), α -[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]- ω -[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-
Not Available	Polyester Film

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Flush immediately with water for at least 15 minutes. Do not rub eyes. If irritation persists get medical attention.

First Aid: Skin

For skin contact flush with large amounts of water. If irritation persists, get medical attention.

First Aid: Ingestion

If the material is swallowed, get immediate medical attention or advice.

First Aid: Inhalation

Move person to non-contaminated air.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

See Section 9 for Flammability Properties.

Product is combustible.

Hazardous Combustion Products

Can include oxides of carbons and other toxic by-products.

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Extinguishing Media

Use appropriate extinguishing media for surrounding fire.

Fire Fighting Equipment/Instructions

Firefighters should wear full protective gear.

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

*** Section 6 - Accidental Release Measures ***

Containment Procedures

No special containment necessary.

Clean-Up Procedures

Vacuum dust that may be generated and dispose of according to applicable federal, state and local regulations.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

None necessary.

*** Section 7 - Handling and Storage ***

Handling Procedures

Avoid dust generation.

Storage Procedures

Keep this material in a cool, well-ventilated place.

*** Section 8 - Exposure Controls / Personal Protection ***

A: Component Exposure Limits

PVC (Chloroethylene, polymer) (9002-86-2)

ACGIH: 1 mg/m³ TWA (respirable fraction)

Titanium dioxide (13463-67-7)

ACGIH: 10 mg/m³ TWA

OSHA: 10 mg/m³ TWA (total dust)

Iron oxide (1309-37-1)

ACGIH: 5 mg/m³ TWA (respirable fraction)

OSHA: 10 mg/m³ TWA (fume)

NIOSH: 5 mg/m³ TWA (dust and fume, as Fe)

Carbon black (1333-86-4)

ACGIH: 3.5 mg/m³ TWA

OSHA: 3.5 mg/m³ TWA

NIOSH: 3.5 mg/m³ TWA; 0.1 mg/m³ TWA (as PAH, carbon black in presence of polycyclic aromatic hydrocarbons)

Engineering Controls

Provide local exhaust ventilation that captures dust during sawing or sanding operations.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear goggles or safety glasses with side shields if dusts are generated.

Personal Protective Equipment: Skin

Wear work gloves when handling.

Personal Protective Equipment: Respiratory

If ventilation or containment measures do not reliably protect against inhalation overexposure, wear MSHA/NIOSH approved respirator suitable for protection from the dust concentrations encountered.

Personal Protective Equipment: General

Wash hands and face with soap and water after handling and especially before eating or smoking.

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*** Section 9 - Physical & Chemical Properties ***

Appearance:	Multi-colored	Odor:	None
Physical State:	Solid	pH:	NA
Vapor Pressure:	ND	Vapor Density:	ND
Boiling Point:	ND	Melting Point:	ND
Solubility (H₂O):	ND	Specific Gravity:	ND
Evaporation Rate:	ND	VOC:	ND
Octanol/H₂O Coeff.:	ND	Flash Point:	ND
Flash Point Method:	ND	Upper Flammability Limit (UFL):	ND
Lower Flammability Limit (LFL):	ND	Burning Rate:	ND
Auto Ignition:	ND		

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Avoid dust generation.

Incompatibility

None

Hazardous Decomposition

May produce oxides of carbon and other toxic compounds.

Possibility of Hazardous Reactions

Will not occur.

*** Section 11 - Toxicological Information ***

Acute Dose Effects

A: General Product Information

No information available for the product.

B: Component Analysis - LD₅₀/LC₅₀

Titanium dioxide (13463-67-7)

Oral LD₅₀ Rat: >10000 mg/kg

Iron oxide (1309-37-1)

Oral LD₅₀ Rat: >10000 mg/kg

Carbon black (1333-86-4)

Oral LD₅₀ Rat: >15400 mg/kg; Dermal LD₅₀ Rabbit: >3 g/kg

Carcinogenicity

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

PVC (Chloroethylene, polymer) (9002-86-2)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Supplement 7 [1987], Monograph 19 [1979] (Group 3 (not classifiable))

Titanium dioxide (13463-67-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

NIOSH: potential occupational carcinogen

IARC: Monograph 93 [in preparation], Monograph 47 [1989] (Group 2B (possibly carcinogenic to humans))

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Iron oxide (1309-37-1)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Supplement 7 [1987], Monograph 1 [1972] (Group 3 (not classifiable))

Carbon black (1333-86-4)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

NIOSH: potential occupational carcinogen

IARC: Monograph 93 [in preparation], Monograph 65 [1996] (Group 2B (possibly carcinogenic to humans))

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

No information available for the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Carbon black (1333-86-4)

Test & Species

24 Hr EC50 Daphnia magna

Conditions

>5600 mg/L

*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

All wastes must be handled in accordance with local, state and federal regulations.

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Not Regulated

*** Section 15 - Regulatory Information ***

US Federal Regulations

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
PVC (Chloroethylene, polymer)	9002-86-2	No	No	No	Yes	No	No
Titanium dioxide	13463-67-7	No	Yes	Yes	Yes	Yes	Yes
Iron oxide	1309-37-1	Yes	Yes	Yes	Yes	Yes	Yes
Carbon black	1333-86-4	Yes	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

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Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Iron oxide	1309-37-1	1 %
Carbon black	1333-86-4	1 %

Additional Regulatory Information

Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Ethene, fluoro-, homopolymer	24981-14-4	Yes	DSL	No
PVC (Chloroethylene, polymer)	9002-86-2	Yes	DSL	ELINCS
2-Propenoic acid, 2-methyl-, methyl ester, polymer with oxiranylmethyl 2-methyl-2-propenoate, ammonia-modified	68584-75-8	Yes	DSL	No
Titanium dioxide	13463-67-7	Yes	DSL	EINECS
Iron oxide	1309-37-1	Yes	DSL	EINECS
Carbon black	1333-86-4	Yes	DSL	EINECS
Poly(oxy-1,2-ethanediyl), α -[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]- ω -[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-	104810-47-1	Yes	DSL	No
Poly(oxy-1,2-ethanediyl), α -[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]- ω -hydroxy-	104810-48-2	Yes	DSL	No

*** Section 16 - Other Information ***

Other Information

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.