

Material Safety Data Sheet

Material Name: MirroFlex – Flat N Series (Black or White Backer)

*** 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
9003-55-8	Styrene-Butadiene polymer
9003-53-6	Polystyrene
Not Available	Polyethylene Masking
1333-86-4	Carbon black
68610-51-5	Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene
100-42-5	Styrene
68584-75-8	2-Propenoic acid, 2-methyl-, methyl ester, polymer with oxiranylmethyl 2-methyl-2-propenoate, ammonia-modified
1309-37-1	Iron oxide
13463-67-7	Titanium dioxide
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]-
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-

*** 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.

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Hazardous Combustion Products

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

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

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)

Styrene (100-42-5)

ACGIH: 20 ppm TWA

40 ppm STEL

OSHA: 50 ppm TWA; 215 mg/m³ TWA

100 ppm STEL; 425 mg/m³ STEL

NIOSH: 50 ppm TWA; 215 mg/m³ TWA

100 ppm STEL; 425 mg/m³ STEL

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)

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.

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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.

*** 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

Carbon black (1333-86-4)

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

Styrene (100-42-5)

Inhalation LC50 Rat: 11.8 mg/L/4H; Oral LD50 Rat:1000 mg/kg

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)

Inhalation LC50 Rat: >165 mg/L/1H; Oral LD50 Rat:>200 mg/kg; Dermal LD50 Rabbit:>5010 mg/kg

Titanium dioxide (13463-67-7)

Oral LD50 Rat: >10000 mg/kg

Iron oxide (1309-37-1)

Oral LD50 Rat: >10000 mg/kg

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Carcinogenicity

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

Styrene-Butadiene polymer (9003-55-8)

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

Polystyrene (9003-53-6)

IARC: Supplement 7 [1987], Monograph 19 [1979] (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))

Styrene (100-42-5)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 82 [2002], Monograph 60 [1994] (Group 2B (possibly carcinogenic to humans))

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))

Iron oxide (1309-37-1)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

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

*** 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 >5600 mg/L

Conditions

Styrene (100-42-5)

Test & Species

96 Hr LC50 Pimephales promelas 4.02 mg/L [flow-through]
 96 Hr LC50 Lepomis macrochirus 25.05 mg/L [static]
 96 Hr LC50 Pimephales promelas 29 mg/L [static]
 72 Hr EC50 Selenastrum 1.4 mg/L
 capricornutum
 96 Hr EC50 Selenastrum 0.72 mg/L
 capricornutum
 48 Hr EC50 Daphnia magna 4.7 mg/L

Conditions

Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)

Test & Species

96 Hr LC50 Oncorhynchus mykiss >0.2 mg/L [semi-static]

Conditions

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72 Hr EC50 Selenastrum capricornutum	>0.2 mg/L
48 Hr EC50 Daphnia magna	>0.2 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

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Styrene (100-42-5)

SARA 313: 0.1 % de minimis concentration

CERCLA: 1000 lb final RQ; 454 kg final RQ

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
Carbon black	1333-86-4	Yes	Yes	Yes	Yes	Yes	Yes
Styrene	100-42-5	Yes	Yes	Yes	Yes	Yes	Yes
Titanium dioxide	13463-67-7	No	Yes	Yes	Yes	Yes	Yes
Iron oxide	1309-37-1	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.

Component Analysis - WHMIS IDL

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

Component	CAS #	Minimum Concentration
Carbon black	1333-86-4	1 %
Styrene	100-42-5	0.1 %
Iron oxide	1309-37-1	1 %

Additional Regulatory Information

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Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Ethene, fluoro-, homopolymer	24981-14-4	Yes	DSL	No
Styrene-Butadiene polymer	9003-55-8	Yes	DSL	No
Polystyrene	9003-53-6	Yes	DSL	No
Carbon black	1333-86-4	Yes	DSL	EINECS
Styrene	100-42-5	Yes	DSL	EINECS
Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene	68610-51-5	Yes	DSL	EINECS
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
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.