



## SAFETY DATA SHEET

SDS No: 0009

**Section 1. Product and Company Identification**

Product Name: Print Grade Pro ABS

Trade Name: Print Receptive ABS

Recommended Use: Signage, Other

Restrictions on Use: None

Manufacture: Rowmark  
5409 Hamlet Drive  
Findlay, OH 45840

In Case of Emergency: Call: Medical: 911  
Poison Control: 800-589-3897  
Information: Call: 1-877-ROWMARK  
Email: [techhelp@rowmark.com](mailto:techhelp@rowmark.com)

**Section 2. Hazard Identification**

GHS Classification: Not Classified

GHS Label Elements: Not Applicable

**GHS Rating**

|              |   |
|--------------|---|
| Health       | 5 |
| Flammability | 4 |
| Instability  | 5 |

Other Hazards: Not Applicable

**GHS Hazard Categories**

|                              |
|------------------------------|
| Category 1 = Severe Hazard   |
| Category 2 = Serious Hazard  |
| Category 3 = Moderate Hazard |
| Category 4 = Slight Hazard   |
| Category 5 = Minimal Hazard  |

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

| Name                                  | CAS #       | % by Weight |
|---------------------------------------|-------------|-------------|
| Acrylonitrile/butadiene/styrene resin | 009003-56-9 | 90-100%     |
| May contain the following:            |             |             |
| Mineral Oil                           | 008042-47-5 | 0-2%        |
| Tallow                                | 008030-12-4 | 0-2%        |
| Wax                                   | 000110-30-5 | 0-2%        |

\* Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

**Section 4. First Aid Measures**

Inhalation: Dust and process vapors may be irritation to the nose, throat and respiratory tract. Remove to fresh air. If

Eyes: Dust, fines and process vapors may irritate the eyes. Immediately flush eyes with water for at least 15

Skin: Exposure to molten plastic may cause thermal burns. If molten material comes in contact with the skin, cool

Ingestion: No adverse health effects expected from ingestion.

**Section 5. Fire-Fighting Measures**

Suitable Extinguishing Methods: Dry Chemical, Water Spray, Foam Carbon Dioxide. Avoid using direct streams of water on molten burning material.

Unsuitable Extinguishing Methods: NONE known.

Hazards During Fire-fighting: Carbon monoxide, carbon dioxide, original monomer other hydrocarbon oxidation products.

Protective Equipment: Wear self-contained breathing apparatus and protective suit.

**Section 6. Accidental Release Measures**

Personal Precautions: See Section 8 - Exposure Controls / Personal Protection.

Environmental Precautions: No Special environmental precautions required.

## Methods and Materials for Containment and Cleaning Up

Spill / Leak: Containment of this material should not be necessary. Sweep up or gather material and place in

## Section 7. Handling and Storage

Handling: Keep away from heat, flame and strong oxidizing agents. 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.

Storage: Keep away from heat, sparks, and flame. Store horizontally in cool, dry place in original container and

## Section 8. Exposure Control and Personal Protection

### Exposure Limits:

1) Effects of Acute Exposure: See section 11, Toxicological Information

2) Effects of Over Exposure: See section 11, Toxicological Information

3) OSHA Permissible Exposure Li Chemical OSHA PEL ACGIH TLV

|  |          |                                              |                  |
|--|----------|----------------------------------------------|------------------|
|  | Corn Oil | 5 mg/m3 (respirable)<br>15 mg/m3 (total) TWA | None Established |
|  | Styrene  | 100 ppm TWA                                  | 20 ppm TWA       |

4) Carcinogen Potential: See section 11, Toxicological Information

### Engineering Controls:

Use recommended safe handling practices to minimize unnecessary exposure.

General room ventilation is adequate for storage and ordinary handling.

Use local exhaust at points of fume generation or if dusty conditions prevail.

### Personal Protective Equipment:

Wear safety glasses with side shields or chemical goggles to prevent eye contact.

Have eye-washing facilities readily available where eye contact can occur.

Wear impervious gloves and protective clothing to prevent skin contact.

## Section 9. Physical and Chemical Properties

|                                 |                         |                                   |                       |
|---------------------------------|-------------------------|-----------------------------------|-----------------------|
| Appearance: Various colors,     | Various color           | Vapor Pressure:                   | Not applicable        |
| Odor:                           | Slight, sweet, aromatic | Vapor Density:                    | 3.6 (styrene          |
| pH:                             | Not applicable          | Relative Density:                 | Approx. 1.05          |
| Melting Point / Freezing Point: | Not established         | Solubility (ies):                 | Insoluble in water    |
| Boiling Point:                  | Not Applicable          | Partition Coefficient (N-Octanol/ | Not applicable        |
| Flash Point:                    | 388-400°C (730-752°F)   | Auto-Ignition Temperature:        | 495-510°C (923-950°F) |
| Evaporation Rate:               | Not Applicable          | Decomposition Temperature:        | Approx. 260°C (500°F) |
| Flammability (solid, gas):      | Dust and molten         | Viscosity:                        | Not applicable        |
| Upper Explosive Limit:          | Not established         | Specific Gravity:                 | 1.05-1.12             |
| Lower Explosive Limit:          | Not established         | Percent Volatile:                 | 0%                    |

## Section 10. Stability Reactivity

Reactivity: Hazardous polymerization does not occur

Chemical Stability: Stable

Possibility of Hazardous Reactions: None known

Conditions to Avoid: Avoid flames, welding arcs, potential ignition sources, or other high temperature sources, prolonged contact with acids, alkalis and strong oxidizing agents

Incompatible Materials: None known

Hazardous Decomposition Products: Thermal decomposition will generate carbon dioxide, carbon monoxide, styrene,

Combustion Products: No data available

## Section 11. Toxicological Information

### Irritation Effects

Eye Irritation: Solid particles may cause transient irritation from mechanical abrasion.

|                  |                                                                                 |
|------------------|---------------------------------------------------------------------------------|
| Skin Irritation: | Not expected to cause skin irritation. Molten material may cause thermal burns. |
| Inhalation:      | Not a likely route of exposure. Process fumes may cause irritation.             |
| Ingestion:       | May cause a choking hazard if swallowed.                                        |

### General Effects of Exposure

**Accute Effects of Exposure:** Gases and fumes evolved during thermal processing or decomposition of this material may irritate the eyes, skin or respiratory tract and cause nausea, drowsiness and headache.

**Chronic (non-cancer) Effects of Exposure:** Not expected to cause any adverse chronic health effects.

### Carcinogenicity:

None of the components present at 0.1% or greater have been classified as a carcinogen.

Styrene                    **IARC** - Overall evaluation: 2B Possible carcinogen  
**IARC** - Evidence of carcinogenicity in animals: Limited data  
**IARC** - Evidence of carcinogenicity in humans: Limited data  
**NTP** - Reasonably anticipated to be a human carcinogen  
**ACGIH** - A4: Not classifiable as a Human Carcinogen

### Product Toxicity Data

**Toxicity Note:** Toxicity data is based on similar to ABS resins.

**Skin Irritation:** rabbit - non-irritating.

**Eye Irritation:** rabbit - Draize - slightly irritating.

**Other Relevant Toxicity Information:** Styrene is slightly toxic to practically non-toxic in oral feeding studies (rats) and skin

### Toxicity Data for Acrylonitrile/Butadiene/Styrene Terpolymer

**Acute Oral Toxicity:** LD50 > 5000 mg/kg (rat)  
**Acute Dermal Toxicity:** LD50 >2,000 mg/kg (rabbit) estimated  
**Skin Irritation:** rabbit – Draize – No skin irritation  
**Eye Irritation:** rabbit – Slightly irritating  
**Sensitization:** Dermal – non-sensitizer (guinea pig Buehler Test)

### Toxicity Data for Styrene

**Acute Oral Toxicity:** LD50 1000 mg/kg (rat)  
**Acute Inhalation Toxicity:** LC50 11.8 mg/L/4 hr (rat)  
**Acute Dermal Toxicity:** LD50 >20,000 mg/kg (rabbit)  
**Skin Irritation:** rabbit – Draize – moderately irritating  
**Eye Irritation:** rabbit – Draize – severely irritating  
**Sensitization:** Dermal – non-sensitizer (guinea pig maximization test (GPMT))

### Additional Toxicological Information

When used and handled according to specifications, the product does not have any harmful effects according to research and information provided by suppliers.

### Carcinogenic Effect

International Agency for Research on Cancer (IARC) : Group3 NOT classifiable as to its carcinogenicity to humans.

## Section 12. Ecological Information

|                                |                                                                                  |
|--------------------------------|----------------------------------------------------------------------------------|
| Eco-toxicity:                  | Toxicity to fish - No relevant studies identified.                               |
| Persistence and Degradability: | This material is not expected to be readily biodegradable.                       |
| Bio-accumulate Potential:      | Product is not likely to accumulate in biological organisms.                     |
| Mobility in Soil:              | This Product has not been found to migrate through soils.                        |
| Other Adverse Effects:         | This Substance is not in Annex I of Regulation (EC) 2037/2000 on substances that |

### Ecological Data for Acrylonitrile/Butadiene/Styrene Terpolymer

**Biodegradation:** Not readily biodegradable

**Bioaccumulation:** Does not bioaccumulate  
**Acute and Chronic Toxicity to Fish LC50:** 18 mg/L/96 hr common carp (*cyprinus carpio*)

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#### Ecological Data for Styrene

**Biodegradation:**  
**Biological Oxygen Demand (BOD):** 5 days, 2.46 mg/L  
**Chemical Oxygen Demand:** 2800-2880 mg/g  
**Theoretical Biological Oxygen Demand (ThBOD):** 3.07 mg/L  
**Bioaccumulation:** Carp 13.5 BCF

#### Acute and Chronic Toxicity to Fish

LC50 9 mg/L/96 hr sheepshead minnow (*cyprinodon variegatus*)  
LC50 29 – 59.3 mg/L/96 hr fathead minnow (*pimephales promelas*)  
LC50 25 mg/L/96 hr bluegill (*lepomis macrochirus*)  
LC50 2.4 – 4.1 mg/L/96 hr rainbow trout (*salmo gairdneri*)

#### Acute Toxicity to Aquatic Invertebrates

EC50 4.7 – 23 mg/L/48 hr water flea (*daphnia magna*)

#### Toxicity to Aquatic Plants

EC50 1.4 mg/L/72 hr green algae (*selenastrum capricornutum*)

#### Toxicity to Microorganisms

EC50 approx. 500 mg/L/30 min activated sludge microorganisms  
EC50 5.5 mg/L/5 min photobacterium phosphoreum  
EC50 72 mg/L/16 hr pseudomonas putida

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### Section 13. Disposal Considerations

#### Disposal Methods

Product Recommendation:

1. Recycle (Reprocess) if product has not been contaminated so as to make it unsuitable for its intended use.
2. Disposal through controlled incineration or authorized waste dump in accordance with Local, State or Federal Regulations.

Uncleaned Packaging Recommendation:

1. Disposal must be done in accordance with Local, State, or Federal Regulation.

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### Section 14. Transportation Information

UN Number: Not Relevant

UN Proper Shipping Name: Not Relevant

#### Transportation Hazard Class(es)

DOT: Not Regulated/classified

TDG: Not Regulated/classified

ADR / RID: Not Regulated/classified

IMDG: Not Regulated/classified

ICAO/IATA: Not Regulated/classified

Packing Group: Not Applicable

Environmental Hazards: Not Relevant

Transportation in Bulk (According to Annex II of MARPOL 73/78 and IBC Code): Not Relevant

Special Precautions for User: No special precautions

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### Section 15. Regulatory Information

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

#### United States Federal Regulations

**US OSHA Hazard Communication Classification:** This product is hazardous under the criteria of the Federal OSHA Hazard

**US Toxic Substance Control Act:** All the components of this product are listed on the TSCA Inventory

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**US EPA CERCLA Hazardous Substances (40 CFR 302):****Components**

Styrene 100-42-5 <0.1% RQ=1000 lbs

**SARA Section 311/312 Hazard Categories:** Not Hazardous

**US EPA Emergency Planning and Community Right to Know Act (EPCRA) SARA Title III****Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):****Components**

None

**Section 313 Toxic Chemicals (40 CFR 372.65) – Supplier Notification Required:****Components**

Styrene 100-42-5 < 0.1%

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**US EPA Resource Conservation and Recovery Act (RCRA) Composite List of Hazardous Wastes and Appendix VIII**

If discarded in purchased form, this product would not be a hazardous waste either by listing or by characteristic. However,

**Canadian Regulations**

**Canadian CEPA Status:** All of the components of this product are listed on the DSL.

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OSHA HazCom: This Material is not Hazardous b OSHA Hazardous Communication Standard 29 CFR 1910.1200

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**WARNING:**

This product can expose you to chemicals including styrene, which is known to the State of California to cause cancer.

For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**Section 16. Other Information**

The information presented in this Safety Data Sheet is based on data considered to be accurate as of the date this Safety Data Sheet was prepared. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.

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Revision Date: January 2020

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