

# MATERIAL SAFETY DATA SHEET



Bayer MaterialScience

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USA

## 1. Product and Company Identification

**Product Name:** BAYBLEND FR 3010 000000  
**Material Number:** 896419  
**Chemical Family:** Thermoplastic Polymer  
**Chemical Name:** Polycarbonate - Acrylonitrile/Butadiene/Styrene Polymer Blend  
**Synonyms:** PC/ABS Blend  
**Formula:** Not applicable--polymeric material

## 2. Hazards Identification

### Emergency Overview

**CAUTION!** **Color:** Natural **Form:** solid Pellets **Odor:** Aromatic.  
Melted product is flammable and produces intense heat and dense smoke during burning.  
Irritating gases/fumes may be given off during burning or thermal decomposition. May  
cause mechanical irritation (abrasion). Causes a slipping hazard if spilled. Contact with  
hot material will cause thermal burns.

### Potential Health Effects

**Primary Routes of Entry:** Inhalation, Skin Contact, Eye Contact

**Medical Conditions Aggravated by Exposure:** Respiratory disorders

### HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

#### Skin

**Acute Skin**

**For Product: BAYBLEND FR 3010 000000**

Contact with heated material can cause thermal burns.

#### Eye

**Acute Eye**

**For Product: BAYBLEND FR 3010 000000**

May cause mechanical irritation.

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## **General Effects of Exposure**

### **Acute Effects of Exposure**

#### **For Product: BAYBLEND FR 3010 000000**

Gases and fumes evolved during the thermal processing or decomposition of this material may irritate the eyes, skin or respiratory tract.

### **Chronic Effects of Exposure**

#### **For Product: BAYBLEND FR 3010 000000**

Not expected to cause any adverse chronic health effects.

### **Carcinogenicity:**

No Carcinogenic substances as defined by IARC, NTP and/or OSHA

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

### **Hazardous Components**

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

### **OTHER INGREDIENTS**

The concentrations reported below in units of parts per million (ppm) or parts per billion (ppb) are maximum values.

<b>Weight %</b>	<b>Components</b>	<b>CAS-No.</b>
<=0.1%	Styrene	100-42-5

## **4. First Aid Measures**

### **Eye Contact**

In case of contact, flush eyes with plenty of lukewarm water.

### **Skin Contact**

In case of skin contact, wash affected areas with soap and water. Get medical attention if thermal burn occurs.

### **Inhalation**

If inhaled, remove to fresh air.

### **Ingestion**

Get medical attention.

## **5. Fire-Fighting Measures**

**Suitable Extinguishing Media:** water, foam, dry chemical, carbon dioxide (CO2)

### **Special Fire Fighting Procedures**

Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.

### **Unusual Fire/Explosion Hazards**

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Toxic and irritating gases/fumes may be given off during burning or thermal decomposition. Dust may form explosive mixtures with air.

## 6. Accidental release measures

### Spill and Leak Procedures

If molten, allow material to cool and place into an appropriate marked container for disposal.

## 7. Handling and Storage

### Storage Temperature:

maximum:

93 °C (199.4 °F)

### Storage Period

Not Established

### Handling/Storage Precautions

Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling. Avoid breathing dust.

### Further Info on Storage Conditions

Protect equipment (e.g. storage bins, conveyors, dust collectors) with explosion vents.

## 8. Exposure Controls / Personal Protection

Country specific exposure limits have not been established or are not applicable

### Styrene (100-42-5)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 20 ppm

US. ACGIH Threshold Limit Values

Short Term Exposure Limit (STEL): 40 ppm

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

Time Weighted Average (TWA): 100 ppm

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

Ceiling Limit Value: 200 ppm

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

Maximum concentration: 600 ppm (5 minutes in any 3 hours)

### Styrene (100-42-5)

US. ACGIH Threshold Limit Values

Hazard Designation: Group A4 Not classifiable as a human carcinogen.

### Industrial Hygiene/Ventilation Measures

General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

### Hand Protection

Wear heat resistant gloves when handling molten material.

### Eye Protection

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safety glasses with side-shields.

#### **Skin and body protection**

No special skin protection requirements during normal handling and use.

#### **Additional Protective Measures**

Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Purgings should be collected as small flat thin shapes or thin strands to allow for rapid cooling.

### **9. Physical and chemical properties**

<b>Form:</b>	solid
<b>Appearance:</b>	Pellets
<b>Color:</b>	Natural
<b>Odor:</b>	Aromatic
<b>pH:</b>	Not Applicable
<b>Boiling Point/Range:</b>	Not Applicable
<b>Flash Point:</b>	320 °C (608 °F)
<b>Lower Explosion Limit:</b>	Not Established
<b>Upper Explosion Limit:</b>	Not Established
<b>Vapor Pressure:</b>	Not Applicable
<b>Density:</b>	not applicable
<b>Specific Gravity:</b>	Approximately 1.2
<b>Solubility in Water:</b>	Insoluble
<b>Autoignition Temperature:</b>	482 °C (899.6 °F)
<b>Decomposition Temperature:</b>	277 °C (530.6 °F)
<b>Softening Point:</b>	200 °C (392 °F)
<b>Bulk Density:</b>	600 - 700 kg/m <sup>3</sup>

### **10. Stability and Reactivity**

#### **Hazardous Reactions**

Hazardous polymerization does not occur.

#### **Stability**

Stable

#### **Materials to avoid**

None known.

#### **Conditions to avoid**

None known.

#### **Hazardous decomposition products**

By Fire and Thermal Decomposition: Carbon Dioxide; Water; Styrene; Acrylonitrile; hydrogen cyanide; Carbon monoxide, hydrocarbons

### **11. Toxicological Information**

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

##### **Acute Oral Toxicity**

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LD50: > 5,000 mg/kg (Rat)

**Acute dermal toxicity**

LD50: > 2,000 mg/kg (rabbit)

Estimated Value

**Skin Irritation**

rabbit, Draize, Non-irritating

**Eye Irritation**

rabbit, Slightly irritating

**Sensitization**

dermal: non-sensitizer (Guinea pig, Buehler Test)

**Toxicity Data for Organic Phosphate**

**Acute Oral Toxicity**

LD50: > 5,000 mg/kg (rat)

**Acute dermal toxicity**

LD50: > 2,000 mg/kg (rat)

**Skin Irritation**

rabbit, Non-irritating

**Eye Irritation**

rabbit, Mild eye irritation

**Sensitization**

non-sensitizer (Guinea pig)

**Repeated Dose Toxicity**

28 days, Oral: NOAEL: 1,862 mg/kg, (rat, Male/Female, daily)

**Mutagenicity**

Genetic Toxicity in Vitro:

Ames: Negative results were reported in various in vitro studies.

**12. Ecological Information**

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

**Biodegradation**

Not readily biodegradable.

**Bioaccumulation**

Does not bioaccumulate.

**Acute and Prolonged Toxicity to Fish**

LC50: 18 mg/l (Common Carp (Cyprinus carpio), 96 hrs)

**Ecological Data for Organic Phosphate**

**Biodegradation**

Not readily biodegradable.

**Acute and Prolonged Toxicity to Fish**

LC50: > 100 mg/l (Rainbow (Donaldson)Trout (Oncorhynchus mykiss), 96 hrs)

**Acute Toxicity to Aquatic Invertebrates**

EC50: > 100 ppm (Water flea (Daphnia magna), 48 hrs)

**Toxicity to Aquatic Plants**

EC50: > 100 ppm, (96 hrs)

**Toxicity to Microorganisms**

EC50: > 1,000 mg/l,

**13. Disposal considerations****Waste Disposal Method**

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

**14. Transportation information****Land transport (DOT)**

Non-Regulated

**Sea transport (IMDG)**

Non-Regulated

**Air transport (ICAO/IATA)**

Non-Regulated

**15. Regulatory Information****United States Federal Regulations**

**OSHA Hazcom Standard Rating:** Non-Hazardous

**US. Toxic Substances Control Act:** Listed on the TSCA Inventory.

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

None

**SARA Section 311/312 Hazard Categories:**

Non-hazardous under Section 311/312

**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

**US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III**

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

**Components**

None

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

**and Appendix VIII Hazardous Constituents (40 CFR 261):**

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

**State Right-To-Know Information**

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

The concentrations reported below in units of parts per million (ppm) or parts per billion (ppb) are maximum values.

**Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:**

<b>Weight %</b>	<b>Components</b>	<b>CAS-No.</b>
>=1%	Bisphenol A Polycarbonate	25971-63-5
>=1%	Acrylonitrile/Butadiene/Styrene	9003-56-9
	Terpolymer	
>=1%	Organic Phosphate	CAS# is a trade secret

**Pennsylvania Right to Know Special Hazard Substance List:**

<b>Weight %</b>	<b>Components</b>	<b>CAS-No.</b>
0.01%	Acrylonitrile	107-13-1

**California Prop. 65:**

**Warning! This product contains chemical(s) known to the State of California to be Carcinogenic.**

<b>Weight %</b>	<b>Components</b>	<b>CAS-No.</b>
0.01%	Acrylonitrile	107-13-1
0.0003%	Methylene Chloride	75-09-2

**16. Other Information**

**HMIS Rating**

<b>Health</b>	0
<b>Flammability</b>	1
<b>Physical Hazard</b>	0

0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

\* = Chronic Health Hazard

Bayer MaterialScience LLC's method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by Bayer MaterialScience LLC as a customer service.

Contact Person: Product Safety Department

MSDS Number: R308578  
Version Date: 02/15/2005  
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