

MATERIAL SAFETY DATA SHEET



Bayer MaterialScience

Bayer MaterialScience LLC
Product Safety & Regulatory Affairs
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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.

<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
<=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

Form:	solid
Appearance:	Pellets
Color:	Natural
Odor:	Aromatic
pH:	Not Applicable
Boiling Point/Range:	Not Applicable
Flash Point:	320 °C (608 °F)
Lower Explosion Limit:	Not Established
Upper Explosion Limit:	Not Established
Vapor Pressure:	Not Applicable
Density:	not applicable
Specific Gravity:	Approximately 1.2
Solubility in Water:	Insoluble
Autoignition Temperature:	482 °C (899.6 °F)
Decomposition Temperature:	277 °C (530.6 °F)
Softening Point:	200 °C (392 °F)
Bulk Density:	600 - 700 kg/m3

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

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**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:

<u>Weight %</u>	<u>Components</u>	<u>CAS-No.</u>
>=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:

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

California Prop. 65:

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

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

16. Other Information

HMIS Rating

Health	0
Flammability	1
Physical Hazard	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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