MATERIAL SAFETY DATA SHEET

Bayer MaterialScience

Bayer MaterialScience LLC
Product Safety & Regulatory Affairs
100 Bayer Road
Pittsburgh, PA 15205-9741
USA

1. Product and Company Identification

Product Name:	BAYBLEND FR 3000 000000
Material Number:	883163
Chemical Family:	Thermoplastic Polymer
Chemical Name:	Polycarbonate - Acrylonitrile/Butadiene/Styrene Polymer Blend
Synonyms:	PC/ABS Blend

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 3000 000000
Contact with heated material can cause thermal burns.

Eye
Acute Eye
For Product: BAYBLEND FR 3000 000000
May cause mechanical irritation.

General Effects of Exposure
Acute Effects of Exposure
For Product: BAYBLEND FR 3000 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 3000 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.

Weight %	Components	CAS-No.
<=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
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
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 Flame Retardant
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.

Toxicity Data for Acrylonitrile/Butadiene/Styrene Terpolymer
Acute Oral Toxicity
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 Styrene/Acrylonitrile Copolymer (SAN)
Acute Oral Toxicity
LD50: 1,800 mg/kg (Rat)
LD50: 1,000 mg/kg (mouse)

Acute dermal toxicity
LD50: > 2,000 mg/kg (rabbit)
Estimated Value

Skin Irritation
rabbit, Draize, No skin irritation

Eye Irritation
rabbit, No eye irritation

Sensitization
dermal: non-sensitizer (guinea pig, Maximisation Test (GPMT))
dermal: non-sensitizer (Human)

12. Ecological Information

Ecological Data for Flame Retardant
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,

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)

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:

Weight %	Components	CAS-No.
>=1%	Bisphenol A Polycarbonate	25971-63-5
>=1%	Bisphenol A Polycarbonate	103598-77-2
>=1%	Flame Retardant	CAS# is a trade secret
>=1%	Acrylonitrile/Butadiene/Styrene Terpolymer	9003-56-9
>=1%	Styrene/Acrylonitrile Copolymer (SAN)	9003-54-7

Pennsylvania Right to Know Special Hazard Substance List:

Weight %	Components	CAS-No.
0.01%	Acrylonitrile	107-13-1

MA Right to Know Extraordinarily Hazardous Substance List:

Weight %	Components	CAS-No.
0.01%	Acrylonitrile	107-13-1
3 ppm	Methylene Chloride	75-09-2

California Prop. 65:
Warning! This product contains chemical(s) known to the State of California to be Carcinogenic.

Weight %	Components	CAS-No.
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

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

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