

# MATERIAL SAFETY DATA SHEET



Bayer MaterialScience

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

## TRANSPORTATION EMERGENCY

CALL CHEMTREC: (800) 424-9300  
INTERNATIONAL: (703) 527-3887

## NON-TRANSPORTATION

Emergency Phone: Call Chemtrec  
Information Phone: (800) 662-2927

## 1. Product and Company Identification

**Product Name:** MAKROLON LUMEN XT WARM-MEDIUM DF LW5,  
TEXTURE  
**Material Number:** 83864304  
**Chemical Family:** Thermoplastic Polymer Sheet  
**Chemical Name:** Bisphenol A Polycarbonate

## 2. Hazards Identification

### Emergency Overview

**Caution:** **Color:** White **Form:** solid sheets **Odor:** Odorless.  
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. 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:** MAKROLON LUMEN XT WARM-MEDIUM DF LW5, TEXTURE  
Contact with heated material can cause thermal burns.

#### Eye

##### Acute Eye

**For Product:** MAKROLON LUMEN XT WARM-MEDIUM DF LW5, TEXTURE  
May cause mechanical irritation.

Material Name: MAKROLON LUMEN XT WARM-MEDIUM  
DF LW5, TEXTURE

Article Number: 83864304

### **Ingestion**

#### **Acute Ingestion**

**For Product:** MAKROLON LUMEN XT WARM-MEDIUM DF LW5, TEXTURE

Ingestion is not a typical route of industrial exposure.

### **General Effects of Exposure**

#### **Acute Effects of Exposure**

**For Product:** MAKROLON LUMEN XT WARM-MEDIUM DF LW5, TEXTURE

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:** MAKROLON LUMEN XT WARM-MEDIUM DF LW5, TEXTURE

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.

## **4. First aid measures**

### **Eye contact**

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

### **Skin contact**

Cool melted product on skin with plenty of water. Do not remove solidified product. Get medical attention if thermal burn occurs.

### **Inhalation**

Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.

### **Ingestion**

Get medical attention.

## **5. Firefighting measures**

**Suitable extinguishing media:** Water fog, 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. Sweep up and shovel into suitable containers for disposal.

## 7. Handling and storage

### Storage temperature:

maximum: 49 °C (120.2 °F)

### Storage period

Containers should be tightly closed to prevent contamination with foreign materials and moisture.

### Handling/Storage Precautions

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

### 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, especially during cutting, grinding and high heat operations.

### Respiratory protection

Although no exposure limit has been established for this product, the OSHA PEL for Particulates Not Otherwise Regulated (PNOR) of 15 mg/m<sup>3</sup> - total dust, 5 mg/m<sup>3</sup> - respirable fraction is recommended. In addition, the ACGIH recommends 3 mg/m<sup>3</sup> - respirable particles and 10 mg/m<sup>3</sup> - inhalable particles for Particles (insoluble or poorly soluble) Not Otherwise Specified (PNOS).

### 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

<b>Form:</b>	solid
<b>Appearance:</b>	sheets
<b>Color:</b>	White
<b>Odor:</b>	Odorless
<b>pH:</b>	not applicable
<b>Melting Point:</b>	220 - 230 °C (428 - 446 °F)
<b>Density:</b>	ca. 1.2 g/cm <sup>3</sup> @ 20 °C (68 °F) (DIN 53479)
<b>Solubility in Water:</b>	insoluble
<b>Auto-ignition temperature:</b>	> 450 °C (842 °F)
<b>Decomposition temperature:</b>	>= 380 °C (716 °F) Fumes evolved by overheating during improperly processing or by burning may be injurious to health.
<b>Softening point:</b>	150 - 160 °C (302 - 320 °F)
<b>Viscosity, dynamic:</b>	not applicable

## 10. Stability and reactivity

### Hazardous Reactions

Hazardous polymerisation does not occur.

### Stability

Stable

### Materials to avoid

None known.

### Conditions to avoid

None known.

### Hazardous decomposition products

By Fire and Thermal Decomposition: Phenol; Carbon oxides, Hazardous decomposition products due to incomplete combustion.

## 11. Toxicological information

### Toxicity Data for MAKROLON LUMEN XT WARM-MEDIUM DF LW5, TEXTURE

#### Toxicity Note

No data available for this product.

## 12. Ecological information

### Ecological Data for MAKROLON LUMEN XT WARM-MEDIUM DF LW5, TEXTURE

#### Additional Ecotoxicological Remarks

No data available for this product.

### 13. Disposal considerations

#### Waste Disposal Method

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

### 14. Transport 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: Excluded: Article.

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)

Under RCRA, it is the responsibility of the person who generates a solid waste, as defined in 40 CFR 261.2, to determine if that waste is a hazardous waste.

#### 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 percent</u>	<u>Components</u>	<u>CAS-No.</u>
>=1%	Bisphenol A Polycarbonate	25971-63-5
>=1%	Bisphenol A Polycarbonate	CAS# is a trade secret
>=1%	Bisphenol A Polycarbonate	CAS# is a trade secret
>=1%	Acrylate Polymer	CAS# is a trade secret

**MA Right to Know Extraordinarily Hazardous Substance List:**

<u>Weight percent</u>	<u>Components</u>	<u>CAS-No.</u>
<=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.**

<u>Weight percent</u>	<u>Components</u>	<u>CAS-No.</u>
<=3 ppm	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

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.

Contact person: Product Safety Department  
Telephone: (412) 777-2835  
MSDS Number: 112000044838  
Version Date: 01/27/2013  
Report version: 1.3

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