

SDS - ESD Polycarbonate



Chemical Product

Product Identifier: Static dissipative polycarbonate sheet or film
Product Description: Poly (bisphenol-A carbonate)
Product Use: May be used as received, processed to produce other articles, or as a component of other industrial products.

Composition/Information on Ingredients

This product consists primarily of high molecular weight polymers, which are not expected to be hazardous.

Hazards Identification

Emergency Overview:

Plastic film or sheet can burn in a fire creating dense, toxic smoke. Molten plastic can cause severe burns. Vapors produced during processing may cause eye, skin and respiratory tract irritation. Secondary operation, such as grinding, sanding or sawing can produce dust, which may present an explosion hazard.

Potential Health Effects:

Eye: Dust and small particles may cause irritation due to mechanical action.
Skin: Dust and small particles may cause irritation due to mechanical action.
Ingestion: Not actually toxic.
Inhalation: Inhalation of product is unlikely due to physical form.

Chronic/Carcinogenicity:

NTP: Not Tested
OSHA: Not Regulated
IARC: Not Listed

Thermal Processing Hazards:

Hot or molten plastic can cause severe burns.

Processing fumes may cause irritation to the eyes, skin and respiratory tract, and in cases of severe over-exposure, nausea and headache.

Grease-like processing fume condensates on ventilation duct work, molds and other surfaces can cause irritation and injury to the skin.

Medical Restrictions:

There are no known human health effects aggravated by exposure to this product. However, certain sensitive individuals with respiratory impairments may be affected by exposure to components in the processing vapors.

Note:

OSHA, IARC, and/or NTP have listed carbon black and heavy metals, present in some colorants, as carcinogens. If these colorants are present in this product at regulated concentrations, they are shown in Section 2. These colorants are essentially bound to the plastic matrix and are unlikely to contribute to the workplace exposure under recommended processing conditions.

SDS - ESD Polycarbonate



First Aid Measures

Eyes:

Remove contact lenses at once. Immediately flush eyes well with copious quantities of water or normal saline for at least 20-30 minutes. If irritation persists, seek medical attention.

Skin:

Wash skin thoroughly with soap and water. Seek medical attention if rash or burn occurs.

Ingestion:

Not probable. If a large amount is swallowed, seek medical attention.

Inhalation:

Not likely to be inhaled due to physical form.

Thermal Processing:

For molten plastic skin contact, cool rapidly with water and immediately seek medical attention. Do not attempt removal of plastic without medical assistance. Do not use solvent for removal.

For processing fume inhalation irritation, leave contaminated area and breathe fresh air. If coughing, difficult breathing, or any other symptoms develop seek medical attention at once, even if symptoms develop at a later time.

For skin contact with fume condensate, immediately wash thoroughly with soap and water. If irritation develops seek medical attention.

Fire Fighting Measures

Fire Fighting:

Approved pressure demand breathing apparatus and protective clothing should be used for all fire. Water spray is the preferred extinguishing medium. This product will melt but will not be carried on the surface of water.

Extinguishing Media:

Water spray and foam. Water is the best extinguishing medium. Carbon dioxide and dry chemical are not generally recommended because their lack of cooling capacity may permit re-ignition.

Hazardous Combustion Products:

Hazardous combustion products may include intense heat, dense black smoke, carbon monoxide, carbon dioxide and hydrocarbon fragments.

Flash Point:

Lower Flammable Limit:

Not applicable

Upper Flammable Limit:

Not Established

Autoignition:

Not Established

Conditions of Flammability:

630° C (1166°F), estimated

Explosion Data:

Requires a continuous flame source to ignite.

Impact Sensitivity:

Not Sensitive to mechanical impact.

Static Discharge:

Not Sensitive to static discharge.(see Handling and Storage)

Accidental Release Measures

General:

Sweep or gather up material and place in proper container for disposal or recovery. (See Disposal Information).

SDS - ESD Polycarbonate



Handling:

Use good industrial hygiene practices. Provide adequate ventilation. Secondary operation such as grinding, sanding or sawing may produce a dust explosion hazard. Use aggressive housekeeping activities to prevent dust accumulation; employ bonding, grounding, venting and explosion relief provisions in accordance with accepted engineering practices.

Storage:

Store in a dry place away from moisture, excessive heat and sources of ignition.

Handling and Storage

Engineering Controls:

When thermally processing this product, a continuous supply of fresh air to the workplace, together with the removal of processing fumes/haze through exhaust systems is recommended. Processing fume/haze condensate may be a fire hazard and toxic; remove periodically from exhaust hoods, duct work and other surfaces using appropriate personal protection. For powders and residual dusts, refer to Handling and Storage.

Exposure Controls/Personal Protection

Ventilation requirements must be locally determined to limit exposure to processing fumes/haze in the workplace. Design technique and guidelines may be found in publications such as:

Industrial Ventilation; available from the American Conference of Governmental Industrial Hygienists, Committee on Industrial Ventilation, P.O. Box 16153, Lansing, MI 48901

Personal Protection

Eye/Face:

Wear safety glasses with side shields or chemical goggles. In addition, use full-face shield when cleaning processing fume condensates from hoods, ducts and other surfaces.

Skin:

When thermally processing product, wear long pants, long sleeves, well-insulated gloves and face shield when applicable. Use appropriate protective clothing, including chemical resistant gloves, to prevent any contact with processing fume condensates.

Respiratory:

When processing fumes/haze are not adequately controlled, use respirator approved for protection from organic vapors, acid gases and particulate matter. When dust or powder from secondary operations such as grinding, sanding or sawing, are not adequately controlled use respirator approved for protection from dust.

Physical and Chemical Properties

Physical State:	Solid
Odor and Appearance:	Plastic sheet or film with slight or no odor
Boiling Point:	Not Applicable
Melting Point:	See COMMENT below
Vapor Pressure (mmHg):	Not Applicable
Vapor Density (air=1)	Not Applicable
Specific Gravity (water=1)	>1
Water Solubility:	Insoluble
% Volatiles:	Negligible
pH:	Not Applicable
Odor Threshold:	Not Established
Evaporation Rate:	Not Applicable
Coefficient Water/Oil Distr:	Not Established

Comment:

This product does not exhibit a sharp melting point, but softens gradually over a wide temperature range.

SDS - ESD Polycarbonate



Stability and Reactivity

Stability:

Stable under recommended conditions of storage and handling.

Reactivity:

Not reactive under recommended conditions of handling, storage, processing and use.

Conditions to Avoid:

Do not exceed melt temperature recommendations in product literature. See Exposure Controls/Personal Protection section for respiratory protection advice.

Hazardous Decomposition:

Processing fumes evolved at recommended processing conditions may include trace levels of phenol, alkylphenols and diarylcarbonate.

Toxicological Information

Product:

Eye:

Product not considered primary eye irritant. When similar products, in finely divided form, were placed into the eyes of rabbits, slight transient redness or discharge occurred – consistent with the expected slightly abrasive nature of the resin particulates.

Skin:

Product not considered primary skin irritant. Draize Skin Primary Irritation Score (rabbit) for similar products, in finely divided form, for a 24-hour exposure is 0. Not expected to be a skin sensitizer based on results of Modified Bueler Guinea Pig Sensitization Test from similar products. Dermal LD50 (rabbit) >2g/kg, estimated.

Acute Oral:

LD50 (Rat) >5g/kg, estimated

Acute Inhalation:

Processing fumes from similar products are not considered toxic. In acute inhalation tests, laboratory rats were exposed to processing fumes at concentrations exaggerating those that would likely occur in workplace situations. No deaths or signs of toxicity, except transient irritancy in some cases, were noted during the 6 hour fume exposure tests. There were no distinct or consistent treatment related tissue or organ changes noted in gross necropsies.

Ecological Information

General:

Not expected to present any significant ecological problems.

Disposal Information

RCRA Hazardous Waste:

Product is not a RCRA hazardous waste

Waste Disposal:

Recycling is encouraged. Landfill or incinerate in accordance with federal, state and local requirements. Collected processing fume condensates and incinerator ash should be tested to determine waste classification.

Transportation Information

DOT Hazard Class:

Not Regulated

Proper Shipping Name:

Not Regulated

Identification Number:

Not Listed

TDGA:

Not Listed

SDS - ESD Polycarbonate



Regulatory Information

The products covered by this MSDS are articles as defined by Section 313, Title III of SARA (Emergency Planning and Community Right-To-Know Act) and therefore are exempt from notification requirements.

TSCA Status:

This product complies with the Chemical Substance Inventory requirements of the US EPA Toxic Substances Control Act (TSCA).

WHMIS Classification:

Not a controlled product

Other

Abbreviations:

ACGIH:	American Conference of Governmental Industrial Hygienists
CA-65:	California Proposition 65 (Safe Drinking Water & Toxic Enforcement Act)
CAS #:	Chemical Abstracts Service Number
EPCRA 313:	Emergency Planning and Community Right-To-Know Act, Section 313. Florida
FL:	Right-To-Know Law, Substance List.
OSHA:	The Occupational Safety and Health Administration.
NPRI:	The Canadian National Pollutant Release Inventory
RCRA:	Resource Conservation and Recovery Act.
RI:	Rhode Island Right-To-Know Law, Hazardous Substance List.
WHMIS:	Canadian Workplace Hazardous Materials Information System.

A&C PLASTICS, INC.

A&C Plastics has no control over the conditions under which this material is used and therefore does not guarantee that results described herein will be achieved. Each user is responsible for conducting their own tests to determine the material's suitability for their specific application. A&C Plastics and its distributors assume no liability for losses resulting from improper installation or use of the material. As part of our policy of continuous product development, please verify with A&C Plastics that you have the most current information available.