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 MSDS#: 0035

MATERIAL SAFETY DATA SHEET

OPTIMUM CARTRIDGES

Identity	Polypropylene Copolymer	
Used in manufacturing EFD part numbers:		
7015214-CARTRIDGE O 2.5OZ BK IM	7015193-CARTRIDGE O 2.5OZ CL IM	
7015217-CARTRIDGE O 6OZ BK IM	7015194-CARTRIDGE O 6OZ CL IM	
7015220-CARTRIDGE O 12OZ BK IM	7015124-CARTRIDGE O 12OZ CL IM	
7015223-CARTRIDGE O 20OZ BK IM	7015195-CARTRIDGE O 20OZ CL IM	
7013710-CARTRIDGE O 32OZ BK	7013708-CARTRIDGE O 32OZ CL	
7015215-CARTRIDGE O 2.5OZ GN IM	7015224-CARTRIDGE O 20OZ GN IM	
7015218-CARTRIDGE O 6OZ GN IM	7013711-CARTRIDGE O 32OZ GN	
7015221-CARTRIDGE O 12OZ GN IM		

Section I	
Manufacturer's Name Proprietary	For Additional Information: Phone: 401-431-7000 800-556-3484 Fax: 401-431-7079 www..efd-inc.com

Section II – Hazardous Ingredients/Identity Information					
Hazardous Components (Specific Chemical Identity; Common Name(s))		<u>OSHA</u> PEL	<u>ACGIH</u> TLV	<u>Other Limits</u> Recommended	<u>% (optional)</u>
Propene, Polymer with ethene (9003-07-0)	< 85%				
Polyolefin Copolymer / Terpolymer (9010-79-1)	< 15%				
Colorant (Trade Secret)					
FDA Compliant – 21CFR 177.1520 (c) 1.1a.					

Section III - Physical/Chemical Characteristics			
<u>Ignition Temperature</u>	570 (1058°F)	<u>Specific Gravity (H2O = 1)</u>	0.895 to 0.905
<u>Vapor Pressure (mm Hg)</u>	NA	<u>Melting Point</u>	145- 164 C.
<u>Vapor Density (AIR = 1)</u>	NA	<u>Evaporation rate (Butyl Acetate = 1)</u>	NA
<u>Solubility in Water</u>	INSOLUBLE	<u>Boiling Point</u>	NA
<u>Appearance and Odor</u>	Translucent pellets and odorless		



Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) >343C. (650 °F) Flammable Limits LEL NA UEL NA

Extinguishing Media

Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.

Special Firefighting Procedures

No special equipment or procedures required.

Unusual Fire and Explosion Hazards

Hazardous melting and dripping may occur at elevated temperatures. May burn at or above flash point and airborne dust may explode if ignited. See National Fire Protection Association Bulletin 654, "Dust Explosion Prevention, Plastics Industry 1975".

Section V - Reactivity Data

Stability

Unstable	
Stable	X

 Conditions to Avoid STRONG OXIDATION

Incompatibility (Materials to Avoid)

STRONG OXIDIZERS

Hazardous Decomposition or Byproducts

AT PROCESSING TEMPERATURES SOME DEGREE OF THERMAL DEGRADATION WILL OCCUR. A VARIETY OF DECOMPOSITION PRODUCTS MAY OCCUR INCLUDING, SIMPLE HYDROCARBONS, TO TOXIC AND IRRITATING GASES SUCH AS CARBON, CARBON MONOXID, CARBON DIOXIDE, ACIDS, KETONES AND ALDEHYDES. SOME SPECIAL FILM GRADES MAY ALSO RELEASE FLUORINATED ORGANIC SUBSTANCES.

Hazardous Polymerization

May Occur	
Will Not Occur	X

 Conditions to Avoid

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? YES Skin? YES Ingestion? UNLIKELY

Health Hazards (Acute and Chronic)

MAY CAUSE EYE IRRITATION.

Carcinogenicity: NTP? NO IARC Monographs? NO OSHA Regulated? NO

Signs and Symptoms of Exposure

NA

Medical Conditions Generally Aggravated by Exposure

PREEXISTING EYE, SKIN, AND RESPIRATORY TRACT SENSITIVITIES PROLONGED OR REPEATED INHALATION OF DUST OR PARTICULATES MAY IMPAIR LUNG FUNCTION OR CAUSE LUNG DAMAGE.

Emergency and First Aid Procedure

EYES: FLUSH WITH WATER. SEE PHYSICIAN IF IRRITATION PERSISTS. SKIN: WASH WITH SOAP AND WATER. SEE PHYSICIAN IN CASE OF BURNS. INHALATION: REMOVE TO FRESH AIR, SEEK MEDICAL ATTENTION



Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

AVOID THE GENERATION OF DUST CLOUDS. PLACE IN APPROPRIATE CONTAINERS FOR DISPOSAL OR RECYCLE. AVOID BREATHING DUST. PRESSURE DEMAND AIR SUPPLIED RESPIRATORS SHOULD ALWAYS BE WORN WHEN THE AIRBORNE CONCENTRATION OF THE CONTAMINANT OR OXYGEN IS UNKNOWN. OTHERWISE, WEAR RESPIRATORY PROTECTION AND OTHER PERSONAL PROTECTIVE EQUIPMENT AS APPROPRIATE FOR THE POTENTIAL EXPOSURE HAZARD. WEAR GLOVES, GOGGLES, AND PROTECTIVE CLOTHING TO AVOID CONTACT WITH EYES, SKIN, OR CLOTHING. USE VACUUMING OR SWEEPING COMPOUND FOR CLEAN-UP. DO NOT DRY SWEEP OR USE METHODS WHICH INCREASE DUSTING. PREVENT ENTRY INTO SWERS AND WATERWAYS.

IF SPILLED WHEN MOLTEN, ALLOW TO SOLIDIFY. SWEEP UP RELEASED MATERIAL. CLEAN UP DUST OR FINES WITH A SPECIAL INDUSTRIAL VACUUM CLEANER.

Waste Disposal Method

THIS PRODUCT HAS BEEN EVALUATED FOR RCRA CHARACTERISTICS AND DOES NOT MEET THE CRITERIA OF A HAZARDOUS WASTE IF DISCARDED IN ITS PURCHASED FORM. UNDER RCRA, IT IS THE RESPONSIBILITY OF THE USER OF THE PRODUCT TO DETERMINE AT THE TIME OF DISPOSAL, WHETHER THE PRODUCTS MEETS RCRA CRITERIA FOR HAZAROUS WASTE. THIS IS BECAUSE PRODUCT USES, TRANSFORMATIONS, MIXTURES, PROCESSES, ETC. MAY RENDER THE RESULTING MATERIALS HAZARDOUS.

Precautions to be Taken in Handling and Storage

PRACTICE GOOD HOUSEKEEPING AND CLEAN UP SPILLS IMMEDIATELY, AS THIS PRODUCT CAN PRESENT A SERIOUS SLIPPING HAZARD. THE HANDLING OF THIS PRODUCT DURING LOADING, UNLOADING, AND FABRICATION MAY GENERATE NUISANCE DUSTS. TAKE NECESSARY PRECAUTIONS TO PREVENT EXPOSURE TO THESE DUSTS. WHEN UNLOADING BULK VEHICLES, DO NOT USE METAL SAMPLING DEVICES, SUCH AS A GRAIN THIEF, DUE TO THE RISK OF STATIC SHOCK AND POTENTIAL IGNITION HAZARDS. PNEUMATIC HANDLING SYSTEMS, AUGERS, AND OTHER UNLOADING DEVICES SHOULD BE FREE OF CONTAMINANTS. PERIODS OF EXPOSURE TO HIGH TEMPERATURES SHOULD BE MINIMIZED. WATER CONTAMINATION SHOULD BE AVOIDED.

Other Precautions

NA



Section VIII - Control Measures

Respiratory Protection (Specify Type)

AIRBORN CONCENTRATIONS SHOULD BE KEPT TO LOWEST LEVELS POSSIBLE. IF VAPOR, MIST OR DUST IS GENERATED AND THE OCCUPATIONAL EXPOSURE OF THE PRODUCT, OR ANY COMPONENT OF THE PRODUCT, IS EXCEEDED, USE APPROPRIATE NIOSH APPROVED AIR PURIFYING OR AIR SUPPLIED RESPIRATOR AFTER DETERMINING THE AIRBORNE CONCENTRATION OF THE CONTAMINANT. AIR SUPPLIED RESPIRATORS SHOULD ALWAYS BE WORN WHEN AIRBORN CONCENTRATION OR OXYGEN CONTENT IS UNKNOWN.

<u>Ventilation</u>	<u>Local Exhaust</u>	<u>Special</u>
	IN VICINITY OF MOLDING MACHINERY	NA
	<u>Mechanical (General)</u>	<u>Other</u>
	NA	NA

Protective Gloves

AS REQUIRED FOR HOT MATERIALS

Other Protective Clothing or Equipment

PROTECTIVE CLOTHING SUCH AS COVERALLS OR LAB COATS SHOULD BE WORN. LAUNDER OR DRY-CLEAN WHEN SOILED. GLOVES AND BOOTS RESISTANT TO CHEMICALS AND PETROLEUM DISTILLATES ALSO RECOMMENDED. HEAT PROTECTIVE CLOTHING SHOULD BE WORN WHEN HANDLING HEATED MATERIALS.

Work/Hygenic Practices

NA