



SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:

Polypropylene

Covers the following grade(s): Impact Copolymer PP

Product use:

Various Consumer products & Industrial applications.

Supplier:

Bamberger Polymers, Inc. Two Jericho Plaza, Suite 109

Jericho, NY 11753

Business Phone:

(800) 888-8959

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS#	% Wt.
1-Propene, polymer with Ethene	9010-79-1	≤ 100
Polypropylene	9003-07-0	≤ 100
Additives	Mixture/proprietary	Varies

^{*}Compositions are NOT part of any specification.

SECTION 3 HAZARD IDENTIFICATION

Handling and/or processing of this material may generate dust which may cause mechanical irritation of the eyes, skin, nose and throat. High dust concentrations have a potential for combustion or explosion.

Potential Health Effects - Routes of Exposure

Skin

No significant irritation expected. Heated material can cause serious thermal burns. At high process temperatures, fumes may cause irritation of the nose and throat.

Eyes

Possible mechanical irritation may manifest itself as local redness with possible discomfort. Heated material can cause thermal burns. When heated, vapors formed may irritate eyes. Material is dusty and may scratch surface of eye.

Inhalation

Exposure to high concentration of airborne particles may cause upper respiratory tract irritation. If heated, the product may form fumes which could cause irritation of the respiratory tract, coughing, nausea, and shortness of breath.

Ingestion

May cause choking, diarrhea, nausea, or discomfort in the abdominal region.

SECTION 4 FIRST AID MEASURES

Eye Contact

Flush eyes with clean, cold, low-pressure running water for at least 15 minutes. Seek immediate medical attention.

Skin Contact

If molten material contacts skin, immediately flush skin with large amounts of cold water. No attempt should be made to peel polymer from the skin or to remove clothing attached with molten material. Thermal burns require immediate medical attention.

Inhalation

Remove victim to well-ventilated area. If not breathing, provide artificial respiration by trained personnel, if difficulty breathing, provide give oxygen and seek medical attention.

Ingestion

If swallowed, do not induce vomiting. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

SECTION 5 FIRE FIGHTING MEASURES

Item	Comment	
Flammability	May be combustible at high temperature.	
Products of Combustion	Combustion can produce carbon dioxide, hydrocarbons, and other harmful products.	
Fire/Explosion Hazards	Material is not explosive as defined by established regulatory criteria.	
Extinguishing Media	High dust concentrations have potential for combustion or explosion. IN case of fire, use water spray (fog), foam, dry chemical or CO ₂ . DO NOT use water jet.	
Firefighting Protection	Wear NIOSH-approved positive pressure, self-contained breathing apparatus (SCUBA) and full protective gear.	

SECTION 6 ACCIDENTAL RELEASES MEASURES

Personal Precautions

Eliminate all ignition sources and contain spill. Granules spilled on the floor can cause slipping. Fine dust clouds may form explosive mixtures _with air._Do_not_touch or_walk through spilled material.__Use suitable protective equipment.

Environmental and Clean-Up Methods

If emergency personnel are unavailable, vacuum or carefully collect spilled material(s), and place in an appropriate container for disposal. Recovered material should be packaged, labeled, transported, and disposed of in conformance to consistent with all applicable laws and regulations. If heated material is spilled, allow to cool before proceeding with cleanup methods. Avoid creating dusty conditions and prevent wind dispersal. Avoid contact of spilled material with soil and prevent runoff from entering sewers and waterways.

Personal Protection

Personnel should wear proper safety equipment.

SECTION 7 HANDLING AND STORAGE

Handling

No smoking. Keep away from open flame or sources of ignition. There is a risk of being splashed with molten materials. At high temperatures, potentially toxic/irritating fumes may result from heated material - do not inhale fumes or vapor from molten product. Use with adequate ventilation. When handling hot material, wear protective gloves, clothing and face shield that are able to withstand the temperature of the molten product. After handling, always wash hands thoroughly with soap and water. Pneumatic conveying and other mechanical handling can generate combustible dust and static electrical charges.

Earth all equipment. High dust concentrations have a potential for combustion or explosion. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Storage

Keep container dry, tightly closed, and stored in a well-ventilated area. Avoid contact or proximity to strong oxidizing agents. Pallet stock slippage and forklift truck maneuvers can cause injury. It is recommended that adequate procedures covering storage handling of pallets are implemented and based on good manufacturing practices.

SECTION 8 PHYSICAL AND CHEMICAL PROPERTIES

Trait	Comment	
Physical State	Solid	
Odor	Odorless to faint odor	
Color	White to translucent to off-white	
Solubility (in water)	Negligible	

SECTION 9 STABILITY AND REACTIVITY

Chemical Stability and Reactivity

Stable.

Conditions to avoid

Excessive temperatures, strong oxidizers, and all possible sources of ignition (spark or flame).

Incompatibility

Strong oxidizing materials, fluorine, halogens, benzene, aromatic and chlorinated hydrocarbons, nitric and perchloric acids and others.

Decomposition products

Combustion can produce carbon monoxide and/or carbon dioxide and other harmful products. Decomposition can yield traces amount of hydrocarbons. Degradation products may include, among others, aldehydes, alcohols, and organic acids.

Hazardous polymerization

Not expected to occur.

SECTION 10 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control Measures

Use enclosures around process, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If high concentrations of airborne matter or fumes are generated, use ventilation to ensure levels are kept below the exposure limit. Clothing and shoes should be dusted before re-used.

Personal protection

Eyes

Safety glasses with side shields are required as minimum requirements. Use full-face respirator if a high dust concentration is generated.

Skin

Minimize contact. The use of heat-resistant protective gloves and clothing and face shield is good industrial practice and recommended.

Respiratory

Product processing may produce dust, vapor or fumes. To minimize risk of overexposure to dust, vapor or fumes it is recommended to use process enclosures and a local exhaust system, and that the working area is properly ventilated. If ventilation is inadequate, use certified respirator that will protect against dust/mist. Do not consume food in the work area.

Hands

Use of heat-resistant protective gloves, clothing and face shield capable of withstanding temperature of molten product, is good industrial practice. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves. Since even the best chemically resistant glove will break down after repeated chemical exposures, gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Consult your supervisor or standard operating procedures for special handling directions.

Consult local authorities for acceptable exposure limits.

SECTION 11 TOXOLOGICAL INFORMATION

This product is not considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity

No test data available.

Bio-degradability

Not inherently biodegradable.

Mobility

This product is expected to float on water, and is not likely to move rapidly with surface or groundwater flows due to its low water solubility. This material is insoluble in water.

Other Information

Wildlife may ingest pellets or bags. Although not toxic, such materials may obstruct the system.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Information

Avoid contact of spilled material and/or runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, and treatment, storage or disposal facilities. Dispose of in accordance with all applicable Federal, State and local control regulations.

Consult your local or regional authorities.

SECTION 14 TRANSPORT INFORMATION

Regulatory Authority	Shipping Description
DOT (USA)	Not regulated as a hazardous material or dangerous goods for transportation.

This information is *not* intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15 REGULATORY INFORMATION

Regulatory Authority	Status
AND CONTRACTOR OF CONTRACTOR O	
TSCA	All ingredients on TSCA list.

SECTION 16 OTHER INFORMATION

Label requirements

This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria.

HMIS:

Reactivity	0
Fire Hazard	1
Health	0

NOTICE

This Material Safety Data Sheet is based upon data considered to be accurate at the time of its preparation. This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Bamberger Polymers. Bamberger Polymers does not assume any liability whatsoever for the accuracy or completeness of the information, the use of the information, or the use of the product mentioned herein. Final determination of the suitability of any information or product contemplated, the manner of use, environmental protection, and the health and safety of its employees is the sole responsibility of the user. Bamberger Polymers shall not be responsible for any damage or injury resulting from abnormal use, from any failure to follow appropriate practices or from hazards inherent in the nature of the product. Although certain hazards may be described herein, we cannot guarantee that these are the only hazards which exist. All materials may present unknown hazards and should be used with caution. Except as stated in this document, no representations are made as to the physical properties or quality of this product. Nothing herein waives or modifies any of the Seller's terms and conditions of sale as it pertains to this product.





Product Name: M. Holland CP700

Date: 6/9/2010

Section I - Product Identification

Product Name	M. Holland CP700 Polypropylene Impact Copolyme	
Manufacturer/Supplier	M. Hoiland Company	
Address	400 Skokie Blvd., Suite 600, Northbrook, IL 60062	
Telephone Number	800-872-7370	
Chemical Family	Polymer	

For emergency health, safety and environmental information, call your M. Holland representative, or the M. Holland corporate office at 800-872-7370.

Section II – Composition/Information on Ingredients

Hazardous Components	CAS Registry No.	<u>% WT</u>
1-Propene, Homopolymer, Isotact	25085-53-4	55-97
Ethylene/Propylene Copolymer	9010-79-1	3-25
Polvethylene	9002-88-4	0-25

Exposure Guidelines (see Section XV for additional exposure limits):

	Governing Body	Exposure Limits	Amount
Limit For The Product	ACGIH	TLV	10 mg^/m³

Section III - Hazards Identification

Emergency Overview:

CAUTION! Combustible particulate solids (combustible dust) of sufficiently small particle size when suspended in air in the presence of an ignition source can result in a fire or explosion. Adequate housekeeping and control of ignition sources should be provided. See NFPA 654. Inhalation of vapors from thermal processing may cause irritation to the upper respiratory tract.

Hazards Ratings:

Key: 0 = least, 1 = slight, 2 = moderate, 3 = high, 4 = extreme				
-	Health	Fire	Reactivity	PPI
NFPA	1	1	0	
HMIS	0	1	0	Х

Potential Health Effects

Pre-Existing Medical Conditions Aggravated By Exposure: The following diseases or disorders may be aggravated by exposure to this product: respiratory system, skin.

Inhalation: Inhalation of fumes, vapors and smoke from thermal processing may cause irritation to the upper respiratory tract. Symptoms may include burning sensation, coughing and sore throat.

LC50 (mg/l): No data LC50 (mg/m³): No data LC50 (ppm): No data



Product Name: M. Holland CP700

Date: 6/9/2010

Skin: Contact with heated product may cause thermal burns.

Draize Skin Score: No data LD50 (mg/kg): No data

Eyes: Contact with heated product may cause thermal burns. Slight irritation from contact with pellets. Possible irritation from fumes, vapors or smoke from thermal processing.

Ingestion: No effects expected if product is ingested.

LD50 (g/kg): No data

Section IV - First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get medical attention.

Skin:

For hot product, immediately immerse in or flush the affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention. No attempt should be made to remove material from skin or to remove contaminated clothing as the damaged flesh can be easily torn.

Eyes:

For contact with molten product, flush immediately with plenty of cool water for at least 20 minutes. Get medical attention.

Ingestion:

First aid not normally required.

Section V – Fire Fighting Measures

Extinguishing Media:

The following media may be used to extinguish a fire involving this material: Water spray; Carbon dioxide; Dry chemical.

Fire Fighting Instructions:

The use of fresh air equipment such as Self Contained Breathing Apparatus (SCBA) or Supplied Air Respirators should be worn for fire fighting if exposure or potential exposure to products of combustion is expected. Wear structural fire fighting gear.

Flammable Properties:

Flash Point: No data

Autoignition Temperature: No data Lower Explosion Limit: No data Upper Explosion Limit: No data



Product Name: M. Holland CP700

Date: 6/9/2010

Section VI - Accidental Release Measures

Vacuum or sweep up material and place in a disposal container. Loose pellets may present a slipping hazard. Clean up spills immediately, observing precautions in Protective Equipment section. The very fine particles can cause a fire or explosion; eliminate all ignition sources.

Section VII - Handling and Storage

Handling:

Avoid breathing vapors from heated material. Follow all MSDS/label precautions even after container is emptied because it may contain product residue. Minimize generation of dust or fine particulates.

Storage: -

Store in a cool dry place.

Section VIII - Exposure Controls/Personal Protection

Consult with a Health and Safety Professional for Specific Selections.

Engineering Controls:

Minimize generation of dust or fine particulates. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs and particulates within their LEL during the use of this product. General dilution ventilation may assist with the reduction of air contaminant and particulate concentrations.

Personal Protection:

Eye Protection: Splash-proof chemical goggles are recommended to protect against the splash of product. Full-face shield is recommended to protect against splash of hot product. Gloves or Hand Protection: Wear insulated impervious protective gear to protect against the splash

of hot product.

Respiratory Protection: Half-mask air purifying respirator with combination organic vapor and HEPA filter cartridges is acceptable for exposures up to ten (10) times the exposure limit. Full-face air purifying respirator with combination organic vapor and HEPA filter cartridges is acceptable for exposures to fifty (50) times the exposure limit.

Other: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Section IX - Physical and Chemical Properties

Appearance	White pellets
Boiling Point (°F)	No data
Bulk Density (lb/gal)	No data
Melting Point (°C)	150-170
Molecular Weight	No data
Octanol/Water Coefficient	No data
pH	No data
Specific Gravity	0.90-0.91



Product Name: M. Holland CP700

Date: 6/9/2010

Solubility in Water (wt %)

Odor

Odor Threshold

Vapor Pressure (psia)

Viscosity (F) Viscosity (C)

% Volatile (wt %)

Negligible

Odorless

No data

Negligible No data

No data

No data

Section X - Stability and Reactivity

Stability:

The product is stable.

Conditions To Avoid:

None known.

Incompatibility:

The following materials are incompatible with this product: Strong oxidizers such as chlorine, peroxides, chromates, nitric acid, perchlorates, concentrated oxygen, sodium hypochlorite, calcium hypochlorite and permanganates.

Hazardous Decomposition Products:

Combustion may produce carbon monoxide, carbon dioxide and other asphyxiants.

Hazardous Polymerization:

Will not occur.

Section XI - Ecological Information

No data available.

Section XII - Disposal Considerations

Follow federal, state and local regulations. Contact to authorized disposal service.

Section XIII - Transport Information

Hazard Class Label Governing Mode Proper Shipping Name UN/NA# Body

DOT Ground Not Regulated

Regulated

N/A

N/A

None

IATA

Air

Non-Hazardous, Non-

Not Regulated



Product Name: M. Holland CP700

Date: 6/9/2010

Section XIV – Regulatory Information

Regulatory List IARC – Group 3 (not	Component Polyethylene	CAS # 9002-88-4
classifiable) Inventory – Australia (AICS) Inventory – Australia (AICS) Inventory – Australia (AICS) Inventory – Canada – Domestic Substances List	1-Propene, Homopolymer, Isotact Ethylene/Propylene Copolymer Polyethylene 1-Propene, Homopolymer, Isotact	25085-53-4 9010-79-1 9002-88-4 25085-53-4
Inventory – Canada –	Ethylene/Propylene Copolymer	9010-79-1
Domestic Substances List Inventory – Canada – Domestic Substances List	Polyethylene	9002-88-4
Inventory – China Inventory – China Inventory – China Inventory – Japan (ENCS)	1-Propene, Homopolymer, Isotact Ethylene/Propylene Copolymer Polyethylene 1-Propene, Homopolymer, Isotact	25085-53-4 9010-79-1 9002-88-4 25085-53-4 9010-79-1
Inventory – Japan (ENCS) Inventory – Japan (ENCS)	Ethylene/Propylene Copolymer Polyethylene	9010-79-1
Inventory – Korea – Existing and Evaluated	1-Propene, Homopolymer, Isotact	25085-53-4
Inventory – Korea – Existing and Evaluated	Ethylene/Propylene Copolymer	9010-79-1
Inventory – Korea – Existing	Polyethylene	9002-88-4
and Evaluated Inventory – Philippines Inventory (PICCS)	1-Propene, Homopolymer, Isotact	25085-53-4
Inventory – Philippines Inventory (PICCS)	Ethylene/Propylene Copolymer	9010-79-1
Inventory (PICCS) Inventory – Philippines Inventory (PICCS)	Polyethylene	9002-88-4
Inventory (FIGCS) Inventory – TSCA – Sect. 8(b) Inventory	1-Propene, Homopolymer, Isotact	25085-53-4
Inventory Inventory – TSCA – Sect. 8(b) Inventory	Ethylene/Propylene Copolymer	9010-79-1
Inventory Inventory – TSCA – Sect. 8(b) Inventory	Polyethylene	9002-88-4

Title III Classifications Sections 311, 312:

Acute – NO Chronic – NO Fire – NO Reactivity – NO

Reactivity – NO Sudden Release of Pressure - NO



Product Name: M. Holland CP700

Date: 6/9/2010

Section XV - Other Information

Follow all MSDS/label precautions even after container is emptied because it may retain product residue. Polypropylene has been tested in laboratory rats by subcutaneous implantation of discs or powder. Local sarcomas were induced at the site of implantation. No epidemiological studies or case reports suggest any serious chronic health hazards from long-term exposure to polypropylene decomposition products below the irritation level (IARC, 19, 128).

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information. Users should make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment.

Material Safety Data Sheet

LLDPE (All Grades) MSDS No. 0001RM

DATE OF ISSUE: December 16, 2010

1. Product and Company Identification

Product Name:

LLDPE

Recycled Linear Low Density Polyethylene

Manufacturer:

Advanced Environmental Recycling Technologies, Inc.

Location:

RR 1 Box 14152

Watts, Oklahoma 74964

Postal: P.O. Box 1237

Springdale, Arkansas 72765

Phone:

479-756-7400

Fax:

479-756-7410

2. Composition/Information on Ingredients

Product Description: Odorless opaque clear/gray pellets or granules

Chemical Name: Polyethylene or Ethylene-Olefin Copolymer

Chemical Family: Ethylene based Polymer

3. Hazards Identification POTENTIAL HEALTH EFFECTS

EYE CONTACT

Particulates may scratch eye surfaces/cause mechanical irritation.

SKIN CONTACT

Negligible hazard at ambient temperatures (-18° to +38° C; 0°-100°F) Exposure to hot material may cause thermal burns.

INHALATION

Negligible hazard at ambient temperature (-18° to +38° C; 0°-100°F) Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.

INGESTION

Minimal toxicity.

4. First Aid Measures

Eyes: This product is an inert solid. If in eye, flush thoroughly with water. If

irritation occurs call a physician.

Skin: For hot products, immerse immediately in cold water to dissipate heat.

Cover with clean cotton gauze and get prompt medical attention. No attempt should be made to remove material from skin or to remove

contaminated clothing, as the damaged skin can be easily

torn/damaged further.

For contact with product at ambient temperature, brush to remove &/or

wash contact area with soap and water.

Inhalation: In the event of adverse exposure to vapors and or aerosols formed at

elevated temperatures immediately remove the victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest.

Call for prompt medical attention.

Ingestion: No adverse effects anticipated by this route of exposure. If ingestion

causes discomfort seek medical assistance. First aid is not normally

required.

5. Fire Fighting Measures

EXTINGUISHING MEDIA

Water, water fog, foam, carbon dioxide or dry chemical on residual fires.

SPECIAL PROTECTIVE EQUIPMENT

Fire fighters should use self contained breathing apparatus for fires that are enclosed.

Flash Point: 649° F (Method ASTM E136 Note: Estimated Minimum)

Flammable Limits: NOTE-Not Applicable

Auto-Ignition Temperature: 649° F Note: Estimated Minimum

FIRE AND EXPLOSION HAZARDS

Solid material, may burn at or above the flashpoint. The airborne dust may explode if ignited.

If thermally decomposed, flammable/toxic gases may be released. Toxic gases will form upon combustion.

Static Discharge-material can accumulate static charges which can cause an incendiary electrical discharge.

FIRE FIGHTING

Respiratory and eye protection required for fire fighting personnel.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS

Under oxygen lean conditions, Carbon Monoxide (CO) and irritating smoke may be produced.

6. Accidental Release:

LAND SPILL

Recover spilled material and place in suitable containers for recycle or disposal. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations. Recycle when possible.

WATER SPILL

Plastic pellets are defined by the US EPA under the Clean Water Act (40CFR122.26) as a "significant material" which requires any industrial plant that may expose pellets to storm water to secure a storm water permit. Violations of the rule carry the same penalties as other Clean Water Act violations. Pellets found in storm water runoff are subject to EPA regulations with the potential for substantial fines and penalties. Skim from surface.

Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

Recover the spilled material and place in suitable container for recycle or disposal.

ENVIRONMENTAL PRECAUTIONS

Not expected to be a problem.

7. Handling and Storage:

ELECTROSTATIC ACCUMULATION HAZARD

Exists-use proper bonding and/or grounding procedure

STORAGE TEMPERATURE

Ambient

LOADING/UNLOADING TEMPERATURE

Ambient

STORAGE/TRANSPORT PRESSURE

Atmospheric

LOADING/UNLOADING VISCOSITY

Solid

STORAGE AND HANDLING

Keep container closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. Do NOT handle or store near an open flame, heat or other sources of ignition. Protect material from direct sunlight. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures.

8. Exposure Control and Personal Protection:

EXPOSURE CONTROLS

Local exhaust ventilation of process equipment may be needed to control particulate exposures to below the recommended exposure limit. See personal protection recommendations.

PERSONAL PROTECTION

For open systems at ambient temperature (-18° to 38° F) where contact is likely, wear safety glasses with side shields. Where contact may occur with hot material wear thermal/heat resistant gloves, arm protection and face shield.

WORKPLACE EXPOSURE GUIDELINES

OSHA REGULATION 29CFR1910.1) REQUIRES THE FOLLOWING PERMISSIBLE **EXPOSURE LIMITS**

5mg/m3 (respirable dust), 15 mg/m3 (total dust) based on the OSHA PEL for nuisance dust.

THE ACGIH RECOMMENDS THE FOLLOWING THRESHOLD LIMIT VALUES TWA (time weighted average) of 10 mg/m3 for inhalable particulate (total dust) and a TWA of 3 mg/m3 for respirable particulate (total dust) for Particulates Not Otherwise Classified (PNOC).

9. Physical Data:

Ambient State:

Solid

:Ha

Not Applicable

Boiling Point:

Not Applicable

Freezing/Melting Point See Notes in Section 16

Vapor Pressure:

Not Applicable

Solubility in Water:

Insoluble

Specific Gravity

0.92 - .970

10. Stability and Reactivity

Stability:

Stable

Conditions to Avoid Instability:

Temperatures over 650°F (343° C) will lead to resin degradation and decomposition

Hazardous Ploymerization

Will not occur

MSDS 0001RM; December 16, 2010

Conditions to Avoid Hazardous Polymerization:

Not Applicable

Materials & Conditions to Avoid Incompatibility:

Fluorine

Strong Oxidizing Agents

Hazardous Decomposition Products:

Flammable Hydrocarbons

11. Toxicological Information

Refer to Section 3 for available information on potential health effects.

12. Ecological Information:

No specific ecological data is available for this product. Please refer to Section 6 for information regarding accidental releases and Section 15 for regulatory reporting information.

Environmental Fate:

This material is not expected to be readily

biodegradable.

13. Disposal Information:

Waste Disposal:

information.

Refer to Sections 5, 6, and 15 for disposal and regulatory

RCRA:

Unused product is not listed by U.S. EPA as a hazardous waste (40 CFR part 261-D) nor is it formulated with materials that are

listed hazardous waste. Product does not exhibit the

hazardous characteristics of ignitability, corrosivity, toxicity, or

reactivity.

14. Transportation Information:

U.S. Department of Transportation:

Not regulated

International Maritime Organization:

Not regulated

International Air Transport Association:

Not regulated

Transport Canada:

Not regulated

15. Regulatory Information:

TSCA:

This product is listed on the TSCA Inventory.

RCRA:

Not regulated

CERCLA:

If this product is accidentally spilled, it is not subject to any special reporting under requirements of the Comprehensive Environmental Response, Compensation and Liability Act. We recommend you contact local authorities to determine if there may be other reporting requirements.

SARA Title III

Under the Provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard categories: Not Hazardous.

SARA Title III, Section 313

This product does not contain Section 313 Reportable Ingredients.

16. Other Information:

NOTES:

Polymer CAS Number:

Melting Point Range: 240-265°F (115-129°C)

National Fire Protection Association standards NFPA 654 and 68 indicate possible explosion hazard of dust particles. Conform accordingly. Avoid accumulation of dust or dust clouds; operate handling and storage systems leak free, practice good housekeeping.

Keep from sources of ignition. Do not store near heat, flame or strong oxidants.

Assure proper electrical grounding of all handling equipment.

Product may also contain varying levels of additives such as slip and antiblocking agents (talc or silica), antioxidants, stabilizers, and corrosion inhibitors.

SPECIAL PRECAUTIONS

Should significant vapors/fumes be generated during thermal processing of this product, it is recommended that work stations be monitored for the presence of thermal degradation by-products which may evolve at elevated temperatures (for example, formaldehyde and acrolein). Processors of this product should assure that adequate ventilation or other controls are used to control exposure.

It is recommended that the current ACGIH-TLVs for thermal degradation byproducts be observed. Contact your A.E.R.T. Representative for further information. MSDS 0001RM; December 16, 2010

To the best of our knowledge, the information contained herein is accurate. However, neither A.E.R.T., Inc. (Advanced Environmental Recycling Technologies, Inc.) nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Nothing contained herein is intended as a recommendation for uses that may infringe patents or other protected rights. Appropriate instructions for use including safe handling procedures should be provided to all handlers and users. This version of this document may be out of date. Always use the most current version of this document available from AERT, Inc. or an official dealer or distributor of A.E.R.T. Recycled LLDPE.

BLEN-COLOR, INC. - Coloring Your Plastic World

P.O. Box 179

29 June Street

Leominster, MA 01453

TEL: (978) 534-3172 FAX: (978) 534-0738 <u>MATERIAL SAFETY DATA SHEET</u>

Company: Perry Machine and Die, Inc..

Attention: OC

COLOR:

606D Black

MSDS #:

606D

DATE: 4/7/04

EMERGENCY #'s: (978) 534-3172 (978) 537-4506

SECTION I ---- IDENTIFICATION

THE FOLLOWING INFORMATION PROVIDED ON THE BELOW PELLETIZED MATERIAL APPLIES TO THE PIGMENTS / RESIN IN THE PURE DRY FORM. THE FORM OF THE MATERIAL PROVIDED TO YOU IS ENCAPSULATED IN PLASTIC AND THEREFORE, THE LIKELIHOOD OF EXPOSURE IS MUCH LESS, EVEN TO THE POINT OF NEGLIGIBLE.

PRODUCT: 606D Black

SYNONYMS: Concentrate = c/c

CHEMICAL FAMILY: Polyolefin based compound LLDPE

CAS GN: 9002-88-4

SECTION II ---- HAZARDOUS INGREDIENTS

This Product is not considered Hazardous as defined in Title 29, CFR 1910, 1200

SECTION III ---- HEALTH INFORMATION

INHALATION: No adverse effects anticipated by this route of exposure incidental to proper industrial handling.

INGESTION: May cause choking if swallowed.

EYE CONTACT: Not determined.

SKIN CONTACT: The pellets can be abrasive. Molten or heated material can cause serious burns to unprotected skin.

SECTION IV ---- OCCUPATIONAL EXPOSURE LIMITS

Not a Carcinogen

NTP: NO IARC: No

OSHA(PEL): None established TLV:(ACGIH): None established

Pathway: Contact with bone, tissue, fluid, or blood; or prolonged contact with mucous membranes. This material is not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. Blen-Color, Inc. will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by FDA regulation or any other statute. Blen-Color, Inc. makes no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues or fluids.

SECTION V ---- EMERGENCY FIRST AID PROCEDURE

FOR OVEREXPOSURE BY:

SWALLOWING: Call a physician or Poison Control Center promptly.

SKIN CONTACT: If contacted by molten polymer, immediately flush area with large amounts of cold water. Get medical attention promptly.

EYE CONTACT: Immediately flush eyes with plenty of cool water for at least 15 minutes. Do not permit victim to rub eyes. Get medical attention promptly.

INHALATION: Immediately remove victim to fresh air. If victim has stopped breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

SECTION VI ---- PHYSICAL DATA

BOILING POINT: Does not apply. MELTING POINT: Not established

VAPOR PRESSURE: Does not apply. SPECIFIC GRAVITY: 2.5 Nominal

VAPOR DENSITY (AIR=1): Does not apply.

SOLUBILITY IN WATER: Insoluble.

APPEARANCE AND ODOR: Approximately 3/8" solid pellets, No appreciable

odor.

SECTION VII ---- FIRE AND EXPLOSION HAZARDS

FLASH POINT & METHOD USED: Does not apply.

AUTO-IGNITION TEMPERATURE: Approx. 645 degrees F (ASTH D1929)

FLAMMABLE LIMITS IN AIR, % BY VOL. LOWER: Does not apply. UPPER: Does not apply.

NFPA RATING: HEALTH () FLAMMABILITY () REACTIVITY (No NFPA rating (Does not apply to exposure hazards other than during a fire.)

FIRE FIGHTING PROCEDURES: (Note: Individuals should perform only those fire fighting procedures for which they have been trained.) Use water spray, dry chemical, foam or carbon dioxide. If possible, water should be applied as a spray from a fogging nozzle since polyethylene is a surface burning material.

SECTION VII (CONT.) ---- FIRE AND EXPLOSION HAZARDS

UNUSUAL FIRE & EXPLOSION HAZARDS: Fire fighters should wear self-contained breathing apparatus in the positive pressure mode with a full facepiece when there is a possibility of exposure to smoke, fumes or hazardous decomposition products. The application of high velocity water will spread the burning surface layer.

SECTION VIII ---- REACTIVITY

STABILITY: Generally stable.

HAZARDOUS POLYMERIZATION: Not likely CONDITIONS & MATERIALS TO AVOID: None Known HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products may include C, CO, CO², H^{2O}, acrolein, formaldehyde, organic vapors.

SECTION IX ---- EMPLOYEE PROTECTION

- CONTROL MEASURES: Engineering controls should be used whenever feasible to maintain concentrations below acceptable exposure criteria (Sections II and IV), including enclosures and local exhaust ventilation.
- RESPIRATORY PROTECTION: Where engineering controls are not feasible or sufficient to achieve full conformance with acceptable criteria (see Section II and IV), use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminant in air in accordance with OSHA 29CFR 1910.134.
- PROTECTIVE CLOTHING: Wear heat protective gloves and clothing if there is potential for contact with heated material.
- EYE PROTECTION: Wear safety glasses meeting the specifications of ANSI Standard Z87.1.

SECTION X ---- ENVIRONMENTAL PROTECTION

- ENVIRONMENTAL PRECAUTIONS: Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill release response plan should be developed and implemented.
- SPILL OR LEAK PROCEDURES: Use good housekeeping practices since spilled pellets may be a slipping hazard. Wear appropriate respiratory protection and protective clothing as described in Section IX. Contain spilled material. Transfer to secure containers. In the event of an uncontrolled release of this material, the user should determine if the release is reportable under applicable laws and regulations.
- WASTE DISPOSAL: All recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices. Reclaim where possible.

SECTION XI ---- REGULATORY CONTROLS

OSHA- This Product is not considered to hazardous substance under OSHA's Federal Hazard Communication Standard 29 CFR 1910.1200 MADEP- MSDS Forms must be submitted in accordance with Massachusetts General Law(MGL) Chapter 111F.

DEPARTMENT OF TRANSPORTATION:

DOT CLASSIFICATION:

DOT PROPER SHIPPING NAME: Non-regulated commodity.

OTHER DOT INFORMATION:

OTHER REGULATORY REQUIREMENTS:

Toxic Substance Control Act

The components of this product are listed in the TSCA inventory.

SARA Hazard Categories

None Contained

SECTION XII ---- PRECAUTIONS: HANDLING, STORAGE AND USAGE

The handling of pellets in both loading and unloading operations as well as
fabrication may cause nuisance dust to be formed, and necessary precautions for
personal protection (see Section IX) should be used.

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Blen-Color, Inc. bears legal responsibility. the user should review any recommendations in the specific context of the intended use to determine whether they are appropriate. It is the responsibility of the user to comply with all applicable laws and regulations.

Prepared by	Blen-Color, Inc.	
ISSUE DATE	<u>.</u>	
SUPERSEDES_		

For Further Information Contact:

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FAX: (978) 534-0738

The additives in this product are encapsulated in a thermoplastic resin with limited release under normal conditions of transportation and storage. Increased release may occur when the resin is melted, ground to a smaller pellet size or subjected to decomposition, as by excess heat. The specific potential for release under user's conditions of handling of this material should be evaluated by a qualified health specialist.