



MATERIAL SAFETY DATA SHEET

Westlake MSDS#: PE018

Revision Date: 10/2/2013

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: TYMAX™ Ethylene Methyl Acrylate Copolymer, modified

Product Grade Designations: GT7000, GT7001, GT7058, GT7060, GT7501, GT7502

Manufacturer/Supplier:

Westlake Polymers LLC
2801 Post Oak Blvd.
Houston, TX 77056
US

MSDS Prepared by Product Regulatory Compliance / Health Safety & Environmental

Chemical Name: Functionalized Poly(ethylene-co-methyl acrylate)

Synonym(s) Functionalized: Ethene Polymers, functionalized LDPE

Product Use: plastic film, laminating, molding, coating

OSHA Status: non-hazardous

For emergency information, telephone CHEMTREC at 800-424-9300.

2. HAZARDS IDENTIFICATION

HMIS® Hazard Ratings: Health - 1, Flammability -1, Chemical Reactivity – 0

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

WARNING: AT ELEVATED TEMPERATURES VAPORS MAY CAUSE IRRITATION TO THE EYES AND RESPIRATORY TRACT AND/OR ALLERGIC RESPIRATORY REACTIONS.
MOLTEN MATERIAL WILL PRODUCE THERMAL BURNS.
AVOID DIRECT REPEATED EXPOSURE TO SKIN.

Exposure Limit: as Nuisance dust, 15.0 mg/m³, OSHA; Dust accumulation may acquire a static charge which could ignite the combustible particles. See section 7.

Inhalation: Not a hazard at ambient temperatures; vapors, fumes, or sprays which can form at elevated temperatures are irritants to the eyes and respiratory tract and may in some persons cause allergic respiratory reactions. Fine dust may cause respiratory tract irritation.

Eyes: Fine dust may scratch eye surface; vapors, fumes, or sprays which form at elevated temperatures can be irritants.

Skin: Contact with molten material will cause thermal burns; Avoid repeated exposure to skin.

Ingestion: Not a normal exposure route; no data is available; adverse reaction is not expected.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Weight %</u>	<u>Component</u>	<u>CAS Registry Number</u>
>99	Functionalized Poly(ethylene-co-methyl acrylate)	Proprietary
<0.2 – 0	Antioxidants	Proprietary
<0.03	Maleic Anhydride	108-31-6

4. FIRST-AID MEASURES

Inhalation: If overcome by dust or vapors, move to fresh air. Get medical attention if symptoms persist.

Eyes: If dust or molten material contacts the eye, immediately flush with plenty of water for at least 15 minutes. If irritation persists, get medical attention immediately.

Skin: For thermal burns, flush or submerge effected area in cold water to dissipate heat. Cover with clean bandage material. Do not peel material from skin. Get medical attention. For contact at ambient temperatures, wash with soap and water.

Ingestion: Material is not expected to be absorbed from the gastrointestinal tract so that induction of vomiting should not be necessary.

Note to Physicians: Burns should be treated as thermal burns. The material will come off as healing occurs; therefore, immediate removal from the skin is not necessary.

5. FIRE FIGHTING MEASURES

Extinguishing Media: water fog, dry chemical, foam, carbon dioxide

Special Fire-Fighting Procedures: Water spray to cool fire exposed surfaces. Wear self-contained breathing apparatus and protective clothing to enter area.

Hazardous Combustion Products: carbon dioxide, carbon monoxide, formaldehyde, acetaldehyde, irritating smoke.

General Fire and Explosion Hazards: Solid product will burn at or above the flash point. Oxygen lean conditions may produce toxic gases, acrid fumes, irritating smoke. Product may accumulate a static charge which could result in an electrical discharge that could ignite polymer dust.

6. ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protective equipment. Sweep or shovel up, place in a container for salvage or disposal as chemical waste.

7. HANDLING AND STORAGE

Personal Precautionary Measures: Avoid contact with molten material; do not breathe fumes, vapors, dust or sprays from molten or burning material. When processing at > 600°F (315°C), consider use of a respirator to avoid breathing decomposition products.

Prevention of Fire and Explosion: Keep from contact with incompatible materials. Minimize dust generation and accumulation. Because product may accumulate a static charge, use proper bonding and/or grounding procedures prior to transfer. In the United States of America, refer to NFPA® Pamphlet No. 654, "Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids."

Storage: Keep container closed and in ventilated area, away from ignition sources, heat, open flames, and direct sunlight. Do not store with incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure: Nuisance dust: US ACGIH TLV : 10 mg/m₃

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye

protection may be needed in special circumstances; such as poorly ventilated spaces, very hot processing, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.

Respiratory Protection: If engineering controls do not maintain airborne concentrations to an acceptable level, an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 29 CFR 1910.134. Respirator type: dust, organic vapor

Eye Protection: Wear goggles or a face shield when working with molten material or when dust is generated.

Skin Protection: Wear thermally resistant gloves and long sleeves when handling molten product.

Recommended Decontamination Facilities: eye bath, washing facilities

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: solid

Color: translucent to light yellow

Odor: odorless to mild

Odor Threshold: not applicable

Specific Gravity: 0.94 – 0.95

Melting point: 70°C (158°F) – 85°C (185°F)

Solubility in Water: negligible

Flash Point: combustible solid

Thermal Decomposition Temperature: Thermal stability not tested for each grade, degradation in air may begin at > 300°C (573°F). Low stability hazard expected at normal operating temperatures.

10. STABILITY AND REACTIVITY

Stability: Product as delivered is stable.

Incompatibility: Product reacts with strong oxidizing agents, fluorine.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicity data is not available. There has been no evidence of acute toxicity, skin sensitization, or sub-acute subchronic toxicity as a result of repeated exposure.

12. ECOLOGICAL INFORMATION

This product has not been tested for environmental effects. These products are not expected to present any environmental problems.

13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Incinerate or landfill in accordance with local regulations.

Emptied containers may retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

DOT (USA): Class not regulated

Sea - IMDG (International Maritime Dangerous Goods): Class not regulated

Air - ICAO (International Civil Aviation Organization): Class not regulated

15. REGULATORY INFORMATION

Note: Information listed in this Section is not meant to be comprehensive, but represents frequently requested information.

TSCA (US Toxic Substances Control Act), Sec 8(b): These products are listed on the TSCA inventory.

TSCA, Sec 12(b): This product does not contain substances subject to reporting

WHMIS (Canada) Status: non-controlled

SARA Title III: In accordance with the provisions of Title III, Sections 311 & 312 of the **Superfund Amendments and Reauthorization Act**, this product is not hazardous. This product does not contain Section 313 Reportable Ingredients.

RCRA: In the form delivered by Westlake, this product is not considered as hazardous waste, and is not subject to reporting under the **Resource Conservation and Recovery Act**.

CERCLA: In the event of a spill, the end user should verify whether reporting is required under local, state, and/or federal regulations.

California Prop 65: In compliance, no reportable substances

CONEG: These products are in compliance with the heavy metals requirements of the **Coalition of Northeastern Governors**.

Ozone Depleting Substances: none reportable, in compliance with 40 CFR 82.

Carcinogenicity Classification (components present at 0.1% or more): none, unless listed below:

IARC (International Agency for Research on Cancer) none

NTP (National Toxicology Program) none

European Hazardous Chemicals: Does not contain REACH SVHC, In compliance with 1272/2008/EC, 2002/95/EC & 2011/65/EC(RoHS), 2002/96/EC (WEEE) This polymer is not dangerous according to the EC Directives.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act):

This product is listed on the DSL.

EINECS (European Inventory of Existing Commercial Chemical Substances): This product complies with EINECS requirements. The polymers are exempt from listing; the monomers are EINECS listed. All additives used in the formulation of this polymer are EINECS listed.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

ENCS, ISHL, METI (Japan Chemical Substance Inventories): This product is listed in the Handbook or have been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.

16. OTHER INFORMATION

Revision Changes:

8/13/13 – Added product grade GT7000.

8/7/13 – Combined Westlake MSDS numbers H7 and H54.

For other information, contact Westlake Polymers LLC Customer Service 1-800-545-9577
(Monday-Friday, 7:30am-5:00pm - central standard time)

It is your responsibility to determine that our product is safe, lawful, and technically suitable for your intended uses. This material safety data sheet cannot cover all possible situations which the user may experience during processing. Each aspect of the user's operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this material safety data sheet should be provided to employees and/or customers. Westlake Polymers LLC must rely on the user to use this information to develop appropriate work practice guidelines and employee instructional programs specific to the user's operation.

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The information in this MSDS is valid for cited regulations published as of the date this document was prepared, as shown on page 1. Updates may be prepared as the regulations are amended or pending revised information about the resin. It is the customer's responsibility to seek updated regulatory information on any specific resin.