

Ethyle Vinyl Acetate

Safety Data Sheet



1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Ethylene Vinyl Acetate (EVA)
Synonyms: EVA
Product Use: Manufacture of plastic articles by injection molding, extrusion or other conversion process.

Company Identification: MGI INTERNATIONAL, LLC
1121 Walt Whitman Rd, Suite #301,
Melville, NY11747
Phone (631) 629-4520 Fax (631) 629-4519

2. HAZARDS IDENTIFICATION, CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS Classification

Combustible dust

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

Label elements

Labeling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

Other hazards

If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air. May decompose releasing irritating and toxic gases. This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

3. COMPOSITION INFORMATION

Substance / Mixture:

Mixture

| Chemical Name | CAS No. | Concentration |
|-----------------------------------|------------|---------------|
| Vinyl acetate polymer with ethene | 24937-78-8 | <= 100 % |

4. FIRST-AID MEASURES

INHALATION

At ambient/normal handling temperatures, no adverse effects due to inhalation of dust are expected. In case of adverse exposure to vapors and / or aerosols formed at elevated temperatures, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest.

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4. FIRST-AID MEASURES (cont.)

SKIN CONTACT

Wash contacts areas with soap and water. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

No adverse effects due to ingestion are expected.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING

Fire Fighting Instructions: Assure an extended cooling down period to prevent re-ignition. Material will not burn. Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Explosion: Avoid generating dust; fine dust dispersed in air in sufficient concentration and in the presence of an ignition source is a potential dust explosion hazard.

Hazardous Combustion Products: Smoke, Fume, Flammable hydrocarbons, Oxides of carbon, Incomplete combustion products, Acetic acid

FLAMMABILITY PROPERTIES

| | | |
|---|----------|----------|
| Flash Point [Method]: | N/A | |
| Flammable Limits (Approximate volume % in air): | LEL: N/D | UEL: N/D |
| Autoignition Temperature: | N/A | |

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

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6. ACCIDENTAL RELEASE MEASURES (cont.)

PROTECTIVE MEASURES

Avoid contact with spilled material. Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (for example, clearing dust surfaces with compressed air). Prevent dust exposure to ignition sources. For example, use non-sparking tools and prohibit smoking, flares, sparks or flames in immediate area. See Section 5 for firefighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

SPILL MANAGEMENT

Land Spill: Spilled pellets present a slipping hazard on hard surfaces. Prevent dust cloud. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Skim from surface.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Prevent entry into waterways, sewers, basements, or confined areas. For Large Spills: Cover spill with plastic sheet or tarpaulin to minimize spreading.

7. HANDLING AND STORAGE

HANDLING

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dust from material can accumulate electrostatic charges due to friction from transfer and mixing operations and cause an electrical spark (ignition source). Provide adequate precautions to ignition sources, such as electrical grounding and bonding, inert atmosphere or non-sparking tools. However, bonding and grounds may not eliminate the hazard for static accumulation. Consult local applicable standards for guidance. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids and EN 61241, Electrical Apparatus for Use in the Presence of Combustible Dust for safe handling. Avoid elevated temperatures for prolonged periods of time. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Prevent small spills and leakage to avoid slip hazard. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Care should be taken when storing and handling this product. Apart from the specific nature of the polymer product, conditions such as humidity, sunlight, and temperature have an influence on the way the product behaves during storage and handling. Special attention should be paid to avoid inappropriate stacking of palletized bags or other package units. Indeed, polymer products may be dimensionally unstable under certain conditions. Avoid conditions generating heat during transfer operations.

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7. HANDLING AND STORAGE (cont.)

Loading/Unloading Temperature: [Ambient]
Transport Temperature: [Ambient]
Transport Pressure: [Ambient]
Static Accumulator: This material is a static accumulator.

The container choice, for example storage vessel, may effect static accumulation and dissipation. Do not store in open or unlabelled containers.

Storage Temperature: [Ambient]
Storage Pressure: [Ambient]
Suitable Containers/Packing: Bulk Containers; Hopper Cars; Bags; Boxes; Drums; Octatainer; Silos
Suitable Materials and Coatings: Aluminum; Polyethylene Bags

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards for materials that can be formed when handling this product:

| | | | |
|-----------------------------|---|----------------------|-------|
| Substance Name | Materials that can be formed when handling this product: Nonspecified (inert or nuisance) dust | | |
| Standard | TWA | | |
| Form · Limit Value · Source | Respirable fraction | 3 mg/m ³ | ACGIH |
| | Inhalable fraction | 10 mg/m ³ | ACGIH |
| | Respirable fraction | 5 mg/m ³ | OSHA |
| | Inhalable fraction | 15 mg/m ³ | OSHA |

For dusty conditions, OSHA recommends for particulates not otherwise regulated an 8-hour TWA of 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction); ACGIH recommends for insoluble and poorly soluble particles not otherwise specified an 8-hour TWA of 10 mg/m³ (inhalable particles), 3 mg/m³ (respirable particles).

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.
No biological limits allocated.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions.
Control measures to consider:

Adequate ventilation should be provided so that exposure limits are not exceeded. 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, oxygenated components). 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 by-products be observed. Contact your local sales representative for further information. It is

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (cont.)

recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product are designed and maintained to minimize dust generation and accumulation. Ensure that dust-handling systems (such as exhaust ducts, dusts collectors, vessels, and processing equipment)

PERSONAL PROTECTION

Personal protective equipment (PPE) selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Particulate air-purifying respirator approved for dust / oil mist is recommended. For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include: if product is hot, thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

| | |
|---|---|
| Relative Density (at 15 °C) | 0.91 - 0.94 [In-house method] |
| Bulk Density | 0.4 g/cc at 20 °C - 1 g/cc at 20 °C [In-house method] |
| Flammability (Solid, Gas) | N/A |
| Flash Point [Method] | N/A |
| Flammable Limits (Approximate volume % in air): | LEL: N/D UEL: N/D |
| Autoignition Temperature | N/A |
| Boiling Point / Range | N/A |
| Decomposition Temperature | N/D |
| Vapor Density (Air = 1) | N/A |
| Vapor Pressure | [Negligible] [In-house method] |
| Evaporation Rate (n-butyl acetate = 1) | N/A |
| pH | N/A |
| Log Pow (n-Octanol/Water Partition Coefficient) | N/A |
| Solubility in Water | Negligible |
| Viscosity | N/A |
| Oxidizing Properties | See Hazards Identification Section. |

OTHER INFORMATION

| | |
|-------------------|--|
| Freezing Point | N/D |
| Melting Point | 60°C (140°F) - 125°C (257°F) [In-house method] |
| Molecular Weight: | 3000 - 50000 |
| Hygroscopic | No |

10. STABILITY AND REACTIVITY

| | |
|------------------------------------|--|
| Reactivity | See sub-sections below. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | Hazardous polymerization will not occur. |
| Conditions to avoid | Avoid elevated temperatures for prolonged periods of time. |
| Materials to avoid | Strong oxidizers |
| Hazardous decomposition products | Material does not decompose at ambient temperatures. |

11. TOXICOLOGICAL INFORMATION

| <u>Hazard Class</u> | <u>Conclusion / Remarks</u> |
|---------------------------------|--|
| Inhalation | |
| Acute Toxicity: | Minimally Toxic. Based on chemical structure (polymers) |
| No end point data for material. | |
| Irritation | Negligible hazard at ambient/normal handling temperatures. |
| No end point data for material | |
| Ingestion | |
| Acute Toxicity: | Minimally Toxic. Based on chemical structure (polymers) |
| No end point data for material. | |

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11. TOXICOLOGICAL INFORMATION (cont.)

Hazard Class

Conclusion / Remarks

Skin

Acute Toxicity:
No end point data for material.

Minimally Toxic. Based on chemical structure (polymers)

Skin Corrosion/Irritation:
No end point data for material.

Negligible irritation to skin at ambient temperatures.

Eye

Serious Eye Damage/Irritation:
No end point data for material.

May cause mild, short-lasting discomfort to eyes.
Based on chemical structure (polymers)

Sensitization

Respiratory Sensitization:
No end point data for material.

Not expected to be a respiratory sensitizer.

Skin Sensitization:
No end point data for material.

Not expected to be a skin sensitizer.
Based on chemical structure (polymers).

Aspiration:
No end point data for material.

Not expected to be an aspiration hazard.
Based on physico-chemical properties of the material.

Germ Cell Mutagenicity:
No end point data for material.

Not expected to be a germ cell mutagen.
Based on chemical structure (polymers).

Carcinogenicity:
No end point data for material.

Not expected to cause cancer.
Based on chemical structure (polymers).

Reproductive Toxicity:
No end point data for material.

Not expected to be a reproductive toxicant.
Based on chemical structure (polymers).

Lactation:
No end point data for material.

Not expected to cause harm to breast-fed children.

Specific Target Organ Toxicity (STOT)

Single Exposure:
No end point data for material.

Not expected to cause organ damage from a single exposure.

Repeated Exposure:
No end point data for material.

Not expected to cause organ damage from prolonged or repeated exposure. Based on chemical structure (polymers).

OTHER INFORMATION

For the product itself: Elevated temperatures or mechanical action may form vapors, mists or fumes which may be irritating to the eyes and respiratory tract.

Dust may be irritating to eyes and respiratory tract.

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12. ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

Material -- Not expected to be harmful to terrestrial organisms.

MOBILITY

Material -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Material -- Expected to be persistent.

Hydrolysis:

Material -- Transformation due to hydrolysis not expected to be significant.

Photolysis:

Material -- Transformation due to photolysis not expected to be significant.

Atmospheric Oxidation:

Material -- Transformation due to atmospheric oxidation not expected to be significant.

BIOACCUMULATION POTENTIAL

Material -- Potential to bioaccumulate is low.

13. DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Suitable routes of disposal are supervised incineration, preferentially with energy recovery, or appropriate recycling methods in accordance with applicable regulations and material characteristics at the time of disposal.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

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14. TRANSPORT INFORMATION

| | |
|--------------------------|--|
| LAND (DOT): | Not Regulated for Land Transport |
| LAND (TDG): | Not Regulated for Land Transport |
| SEA (IMDG): | Not Regulated for Sea Transport according to IMDG-Code |
| Marine Pollutant: | No |
| AIR (IATA): | Not Regulated for Air Transport |

15. REGULATORY INFORMATION

TSCA 12b

No substances are subject to TSCA 12(b) export notification requirements.

Significant New Use Rules (SNUR)

No substances are subject to a Significant New Use Rule.

SARA 302/304

This product contains no known chemicals regulated under SARA 302/304.

SARA 311/312

Based upon available information, this material is classified as the following health and/or physical hazards according to Section 311 & 312: Combustible Dust.

SARA 313

This product contains no known chemicals regulated under SARA 313.

State Reporting

This material does not contain listed substance(s) known to the State of California to cause cancer, birth defects, or other reproductive harm that would require warning under the California Proposition 65 State Drinking Water and Toxic Enforcement Act. This product contains no known chemicals regulated by New Jersey's Worker and Community Right to Know Act. No components are subject to the Massachusetts Right to Know Act. This product contains no known chemicals regulated by Pennsylvania's Right to Know Act.

Global Inventory Status

The ingredients of this product are compliant with the following chemical inventory requirements or exemptions. The components of this product are reported in the following inventories:

| | |
|------------------------|---|
| REACH (European Union) | For further information, please contact: Manufacturer, importer, supplier |
| TSCA (USA) | Compliant |
| DSL (Canada) | Compliant |
| AICS (Australia) | Compliant |
| NZIoC (New Zealand) | Compliant |
| ENCS (Japan) | Compliant |
| KECI (Korea) | Compliant |
| PICCS (Philippines) | Compliant |
| IECSC (China) | Compliant |
| TCSCA (Taiwan) | Compliant |

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16. OTHER INFORMATION

Other information

Literary reference

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

| | | |
|----------------------|-----------------|---|
| Hazard Rating System | HMIS | |
| | Health | 1 |
| | Flammability | 1 |
| | Physical Hazard | |

Disclaimer

Caution do not use MGI International, LLC materials in applications involving implantation within the body direct or indirect contact with the blood pathway, contact with bone tissue fluid, blood or prolonged contact with mucus membranes. MGI International, LLC materials are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. MGI International, LLC 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. MGI International, LLC 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. The information on this SDS was obtained from sources which we believe reliable. However, the information is provided without any warranty expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of the product. If the product is used as a component in another product, this SDS information may not be applicable.