

1. Product and Company Identification

Product Name: Low Density Polyethylene Resin
Trade Name: Certene
Company Name: Muehlstein
Ravago Americas
10 Westport Rd
Wilton, CT 06897
Web site address: www.muehlstein.com
Emergency Contact: ChemTrec: (800) 424-9300
Information: 1-800-25-RESIN

2. Hazards Identification

Combustible Dust

GHS Signal Word: **Warning**

GHS Hazard Phrases: May form combustible dust concentrations in air. While this product may not be a combustible dust as sold, further processing or handling may form combustible dust concentrations in air.

GHS Precaution Phrases: No phrases apply.

GHS Response Phrases: No phrases apply.

GHS Storage and Disposal Phrases: No phrases apply.

OSHA Regulatory Status: This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200, the SDS and labels contain all the information as required by the standard.

Potential Health Effects (Acute and Chronic): The components of this product are embedded in an impervious polymer matrix and therefore present a negligible exposure risk under normal conditions of processing and handling.

Inhalation: Fumes produced during melt process may cause eye, skin and respiratory irritation. Secondary operations such as material transfer, grinding, sanding or sawing can produce combustible dust.

Skin Contact: Heated material can cause thermal burns resulting in pain, redness and blistering.

Eye Contact: May cause eye irritation.

Ingestion: May be harmful if swallowed.

Medical Conditions Generally Aggravated By Exposure: None known.

3. Composition/Information on Ingredients

| CAS # | Hazardous Components (Chemical Name) | Concentration |
|-------|--------------------------------------|---------------|
| NA | NONE | ~100 % |

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4. First Aid Measures

| | |
|--|--|
| Emergency and First Aid Procedures: | For processing fume inhalation, leave the contaminated area and breathe fresh air. |
| In Case of Inhalation: | Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. |
| In Case of Skin Contact: | Get medical aid if irritation develops or persists. Flush skin with plenty of soap and water. |
| In Case of Eye Contact: | In case of contact, immediately flush eyes with copious amounts of water for at least {15} minutes. |
| In Case of Ingestion: | If swallowed, wash out mouth with water provided person is conscious. Call a physician. |
| Signs and Symptoms Of Exposure: | The components of this product are embedded in an impervious polymer matrix and therefore present a negligible exposure risk under normal processing conditions. |
| Note to Physician: | None |

5. Fire Fighting Measures

| | |
|--|--|
| Flash Pt: | NA Method Used: Not Applicable |
| Explosive Limits: | LEL: NA UEL: NA |
| Autoignition Pt: | NA |
| Suitable Extinguishing Media: | Water spray and foam. Water is the best extinguishing medium. |
| Fire Fighting Instructions: | Emits toxic fumes under fire conditions. Approved positive pressure demand breathing apparatus (SCBA) and protective clothing should be used for all fires. |
| Flammable Properties and Hazards: | Carbon dioxide and carbon monoxide generated when the material burns. Combustible Dust may form during material transfer. Estimated Dust Explosion Class = ST2; Kst estimated (bar.m/s): >200 - </=300 |
| Hazardous Combustion Products: | No data available. |

6. Accidental Release Measures

| | |
|---|---|
| Steps To Be Taken In Case Material Is Released Or Spilled: | Vacuum or sweep up material and place into a suitable disposal container. |
|---|---|

7. Handling and Storage

| | |
|---|--|
| Precautions To Be Taken in Handling: | Use with adequate ventilation. Minimize dust generation and accumulation as combustible dust mixtures may be formed. |
| Precautions To Be Taken in Storing: | Store in a cool, dry place. |

8. Exposure Controls/Personal Protection

| CAS # | Partial Chemical Name | OSHA TWA | ACGIH TWA | Other Limits |
|---|--|----------|-----------|--------------|
| NA | NONE | No data. | No data. | No data. |
| Respiratory Equipment (Specify Type): | Follow the OSHA respirator regulations found in {149} CFR {1910.134} or European Standard EN {149}. Use a NIOSH/MSHA or European Standard EN {149} approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. | | | |
| Eye Protection: | Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in {1910.133} CFR {1910.133} or European Standard EN166. | | | |
| Protective Gloves: | Wear appropriate protective gloves to minimize skin exposure. | | | |
| Other Protective Clothing: | Wear appropriate protective clothing to minimize contact with skin. | | | |
| Engineering Controls (Ventilation etc.): | Use adequate ventilation to keep airborne concentrations low. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels. | | | |

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Work/Hygienic/Maintenance Wash thoroughly after handling.

Practices:

9. Physical and Chemical Properties

Physical States: [] Gas [] Liquid [X] Solid

Appearance and Odor: Pellets with slight or no odor.

pH: No data.

Melting Point: 100.00 C (212.0 F) - 140.00 C (284.0 F)

Boiling Point: NA

Flash Pt: NA Method Used: Not Applicable

Evaporation Rate: NA

Flammability (solid, gas): No data available.

Explosive Limits: LEL: NA UEL: NA

Vapor Pressure (vs. Air or mm Hg): NA

Vapor Density (vs. Air = 1): NA

Specific Gravity (Water = 1): > 1

Solubility in Water: NA

Solubility Notes: Insoluble in cold water.

Octanol/Water Partition Coefficient: No data.

Percent Volatile: < 1.0 %

Autoignition Pt: NA

Decomposition Temperature: > 300.00 C (572.0 F)

Viscosity: No data.

10. Stability and Reactivity

Stability: Unstable [] Stable [X]

Conditions To Avoid - Instability: Stable under recommended conditions of storage and handling.

Incompatibility - Materials To Avoid: No special recommendations.

Hazardous Decomposition or Byproducts: Processing fumes evolved at recommended processing conditions may include trace levels of low molecular weight hydrocarbon fragments, carbon dioxide, carbon monoxide and Irritating fumes and gases.

Possibility of Hazardous Reactions: Will occur [] Will not occur [X]

Conditions To Avoid - Hazardous Reactions: Under normal conditions of use, hazardous decomposition will not occur.

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11. Toxicological Information

Toxicological Information: No data available.

Carcinogenicity/Other Information:

| CAS # | Hazardous Components (Chemical Name) | NTP | IARC | ACGIH | OSHA |
|-------|--------------------------------------|------|------|-------|------|
| NA | NONE | n.a. | n.a. | n.a. | n.a. |

12. Ecological Information

General Ecological Information: This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability: No data available.

Bioaccumulative Potential: This product will not readily bioaccumulate due to its insolubility in water.

Mobility in Soil: Soil mobility is expected to be negligible, because the product is insoluble in water.

13. Disposal Considerations

Waste Disposal Method: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in {261} CFR Parts {261.3}. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not regulated as a hazardous material.

DOT Hazard Class:

UN/NA Number:

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Non-Hazardous for Air Transport.

15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

| CAS # | Hazardous Components (Chemical Name) | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) |
|-------|--------------------------------------|--------------|-----------|--------------|
| NA | NONE | No | No | No |

This material meets the EPA [] Yes [X] No Acute (immediate) Health Hazard

'Hazard Categories' defined for [] Yes [X] No Chronic (delayed) Health Hazard

SARA Title III Sections 311/312 [X] Yes [] No Fire Hazard

as indicated: [] Yes [X] No Sudden Release of Pressure Hazard

[] Yes [X] No Reactive Hazard

| CAS # | Hazardous Components (Chemical Name) | Other US EPA or State Lists |
|-------|--------------------------------------|--|
| NA | NONE | CAA HAP,ODC: No; CWA NPDES: No; TSCA: No |

| CAS # | Hazardous Components (Chemical Name) | International Regulatory Lists |
|-------|--------------------------------------|---|
| NA | NONE | Canadian DSL: No; Canadian NDSL: No; Mexico INSQ: No; REACH: No |

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16. Other Information

Revision Date: 09/17/2015

Preparer Name: Safety & Environmental Department

Additional Information About This Product: Information given herein is offered in good faith as accurate, but without guarantee. The conditions of use and suitability of the product for an application is beyond our control. All risks of use of the product are therefore assumed by the user and we expressly disclaim all warranties of every kind of nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of this product. Appropriate warnings and safe handling procedures should be provided to handlers and users.

OSHA HAZCom Label for Combustible Dust Hazard:

Ravago Americas LLC
1900 Summit Tower Blvd.
Orlando, FL 32810
(407)875-9595
Chem-Trec (800)424-9300

Warning: May Form Combustible Dust Concentrations in Air
Use Caution as Dust Clouds may be Explosive
Product is Static Accumulator
Avoid Heat, Sparks and Open Flame
Earth Whenever Possible