

## Safety Data Sheet acc. to OSHA HCS

Printing date 11/17/2016

Reviewed on 05/11/2016

### 1 Identification

- **Product identifier**
- **Trade name:** **HERCOLYN® D**
- **Product Description** methyl ester of hydrogenated rosin
- **Article number:** 102551, 108757, 166641, 108756
- **Application of the substance / the mixture**  
 Carrier and fixative in fragrance compounds  
 Component in chewing gum base to adjust hardness, plasticity, and chew characteristics  
 Component in cosmetics, depilatory waxes, and other personal care products  
 Resin component in adhesives, inks, floor tile, vinyl plastics, rubber compositions, and related applications
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 Pinova, Inc.  
 2801 Cook Street  
 Brunswick, Georgia, USA 31520  
 MSDS@pinovasolutions.com
- **Information department:** Regulatory Affairs
- **Emergency telephone number:**  
 Within USA and Canada: 1-800-CHEMTREC (424-9300)  
 Outside the USA and Canada: 1-703-527-3887

### 2 Hazard(s) identification

- **Classification of the substance or mixture**  
 Aquatic Acute 3 H402 Harmful to aquatic life.  
 Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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- **Label elements**
- **GHS label elements**  
 The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements**  
 H402 Harmful to aquatic life.  
 H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**

P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P234	Keep only in original container.
P261	Avoid breathing mist/vapours/spray.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves / eye protection.
P284	In case of inadequate ventilation wear respiratory protection.
P301+P312	IF SWALLOWED: Call a doctor if you feel unwell.

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- P301+P330+P331 *If swallowed: Rinse mouth. Do NOT induce vomiting.*
- P302+P352 *IF ON SKIN: Wash with plenty of soap and water.*
- P304+P312 *IF INHALED: Call a doctor if you feel unwell.*
- P304+P341 *If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.*
- P305+P351+P338 *If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
- P314 *Get medical advice/attention if you feel unwell.*
- P337+P313 *If eye irritation persists: Get medical advice/attention.*
- P362 *Take off contaminated clothing.*
- P402+P404 *Store in a dry place. Store in a closed container.*
- P403+P233 *Store in a well-ventilated place. Keep container tightly closed.*
- P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Information pertaining to particular dangers for man and environment:**

CAUTION!

**POTENTIAL HEALTH EFFECTS**

No effects known on humans from discontinuous short-term exposure.

Prolonged exposure to smoke or fumes generated by heating this product may cause respiratory irritation with throat discomfort, coughing, or breathing difficulty. Repeated exposure may lead to respiratory sensitization (asthma) in susceptible individuals.

**GENERAL HYGENIC PRACTICES** - Avoid contact with eyes, skin, and clothing. Avoid breathing vapor, fumes or mist. Handle in areas with adequate ventilation.

Refer to SDS Section 8, Exposure Controls/Personal Protection, for further information. Refer to Section 5 for Hazardous Combustion Products and Section 10 for Hazardous Decomposition/Hazardous Polymerization Products.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 0

Fire = 1

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 0

Fire = 1

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

## 3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No.:** 8050-15-5

· **CAS No. Description**

*Resin acids and Rosin acids, hydrogenated, Me esters*

· **EC number:** 232-476-2

· **Index number:** 002-324-76-2

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· **Additional information:**

*This product is not classified as hazardous under OSHA regulations, however, this SDS contains valuable information important to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users/handlers of this product.*

*If this product is heated or used at temperatures sufficient to produce smoke or fumes, refer to SDS Section 8, Exposure Controls/Personal Protection*

*As Pinova, Inc. interprets the Workplace Hazardous Materials Information System (WHMIS), this product should not be considered a controlled product; however, this SDS contains valuable information important to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users/handlers of this product.*

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

*No adverse health effects are expected from exposure to this product. Should exposure present a problem: Remove to fresh air.*

*See Note to Physician.*

· **After skin contact:**

*Not a skin hazard under anticipated conditions of use. Good industrial hygiene practice dictates thoroughly washing skin with soap and water should accidental contact occur.*

· **After eye contact:**

*Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get medical attention if irritation persists.*

· **After swallowing:**

*Not an ingestion hazard under anticipated conditions of use.*

*For accidental ingestion: Do NOT induce vomiting. Get immediate medical attention.*

· **Information for doctor:**

*This product contains rosin or a rosin derivative. Rosin decomposition products, present in smoke or fumes, have been reported to cause respiratory sensitization (asthma) in susceptible individuals after repeated exposure.*

· **Most important symptoms and effects, both acute and delayed**

*No further relevant information available.*

· **Indication of any immediate medical attention and special treatment needed**

*No further relevant information available.*

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

*Dry chemical, foam, carbon dioxide or clean extinguishing agents may be used on fires involving this product.*

· **Special hazards arising from the substance or mixture**

*Combustion products include:*

*Carbon monoxide (CO)*

*Carbon Dioxide (CO<sub>2</sub>)*

*Smoke*

· **Advice for firefighters**

· **Protective equipment:**

*Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear when fighting fires involving this product.*

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Cool containers with water to prevent rupture.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

*In case of accidental spill or release, refer to Section 8, Personal Protective Equipment and General Hygiene Practices.*

- **Environmental precautions:**

*For small spills: Add absorbent, sweep up, and dispose appropriately. Avoid disposing directly into sewer, soil or aquatic environment. For large spills: Dike to contain and pump into drums for use or disposal.*

*Do not allow to enter sewers/ surface or ground water.*

- **Methods and material for containment and cleaning up:** *Pick up mechanically.*

- **Reference to other sections**

*See Section 7 for information on safe handling.*

*See Section 8 for information on personal protection equipment.*

*See Section 13 for disposal information.*

## 7 Handling and storage

- **Handling:**

- **Precautions for safe handling** *Store in cool, dry place in tightly closed receptacles.*

- **Information about protection against explosions and fires:**

*Avoid storing product near incompatible materials. See SDS Section 10.*

*Keep away from heat, flame, sparks and other ignition sources.*

- **Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

*Store in a cool, dry, well-ventilated area.*

*Store in a sprinklered warehouse.*

*Keep container closed when not in use.*

- **Information about storage in one common storage facility:** *Not required.*

- **Further information about storage conditions:** *None.*

- **Specific end use(s)** *No further relevant information available.*

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:**

*Eyewash fountains and safety showers should be easily accessible.*

*Provide adequate ventilation.*

*Keep away from ignition sources.*

*For good industrial hygiene practice: Completely isolate and thoroughly clean all equipment, piping, or vessels before beginning maintenance or repairs.*

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:** *Not required.*

- **Additional Occupational Exposure Limit Values for possible hazards during processing:**

*ROSIN PYROLYSIS FUMES: If this product is heated to temperatures sufficient to produce smoke or fumes, maintain exposure to resin acids to the lowest achievable concentration using recommended engineering controls and personal protective equipment.*

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Avoid contact with eyes, skin, and clothing.  
 Avoid breathing vapor or mist.  
 Wash thoroughly after handling, and before eating, drinking or smoking.
- **Breathing equipment:**  
 If user operations generate vapor, fumes or mist:  
 Appropriate respiratory protection is required when exposure to airborne contaminants may exceed acceptable limits. Respirators should be selected and used in accordance with OSHA, Subpart I (29 CFR 1910.134) and manufacturers recommendations.
- **Protection of hands:**  
 Impervious gloves  
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
 Selection of the glove material should be made based on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** For good industrial hygiene practice: Safety glasses
- **Body protection:** Appropriate protective clothing

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** Viscous Liquid

**Color:** light amber

- **Odor:** resinous

- **Percent Volatile** negligible @ 20 °C

- **Specific Gravity** 1.02 @ 25 °C

- **Vapor Density** heavier than air

- **Change in condition**

**Boiling point/Boiling range:** 360 - 364 °C (680 - 687 °F)

- **Flash point:** > 170 °C (> 338 °F)

- **Danger of explosion:** Product does not present an explosion hazard.

- **Vapor pressure at 20 °C (68 °F):** <0.1 hPa (<0 mm Hg)

- **Density:** Not determined.

- **Bulk density:** Not determined

- **Solubility in / Miscibility with**

**Water at 20 °C (68 °F):** negligibl g/l

- **Other information** No further relevant information available.

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## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
Stable under recommended handling and storage conditions.
- **Possibility of hazardous reactions**  
Not anticipated under normal or recommended handling and storage conditions.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Incompatible with: oxidizing agents
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**  
Subchronic 90-day rat feeding studies resulted in a no observed effect level (NOEL) of 0.2% in the diet. A single exposure to vapors of the material heated to 176°C for four hours (nominal concentration 15 mg/L) caused minimal treatment effects. Repeated exposure for four hours/day for 10 exposures at 176°C (nominal concentration 15 mg/L) caused weight loss and chromorrhinorrhea. Repeated exposure for four hours/day for 10 exposures at 176°C (nominal concentration 2.0 mg/L) caused initial weight loss, chromorrhinorrhea and death to 2/10 rats after the last exposure. Not a skin irritant or sensitizer in the guinea pig maximization test. Skin was stripped prior to testing to assure maximal exposure to living tissue.

Oral	LD50	> 5000 mg/kg (guinea pig)
		> 5000 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Not a skin irritant or sensitizer in a 200-subject repeated insult patch test.
- **on the eye:** No irritating effect.
- **Sensitization:**  
This product contains rosin or a rosin derivative. Smoke or fumes generated by heating may lead to respiratory sensitization (asthma) in susceptible individuals.
- **Other information (about experimental toxicology):**  
CYTOTOXICITY  
Not cytotoxic in the agar diffusion assay using L-202 mammalian fibroblast cells.  
MUTAGENICITY/GENOTOXICITY INFORMATION  
Chromosome aberration (CHO) IN VITRO: Not clastogenic. Not mutagenic to Salmonella and E. Coli.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:**  
Acute 96-hour LL50 (Fathead minnow): > 1000 mg/l.  
Acute 48-hour EL50 (Daphnia magna): 27 mg/l  
NOEL: < 19 mg/l

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- Algae growth inhibition test (72-hour EL50): > 1000 mg/l
- **Persistence and degradability**  
Based upon data from this or similar materials, this product cannot be regarded as readily biodegradable; however, it may be slowly biodegradable.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:**  
Harmful to aquatic organisms  
Harmful to fish
- **Additional ecological information:**
- **General notes:**  
Harmful to aquatic organisms  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Incineration in accordance with applicable regulations is the recommended disposal method. Landfilling in a permitted solid or hazardous waste facility is a suitable alternative after solidification to remove free liquids.  
Disposal should be in accordance with applicable Federal, State and local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, ADN, IMDG, IATA</b></li> </ul>	Void
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT, ADN, IMDG, IATA</b></li> <li>· <b>ADR</b></li> </ul>	Void Void
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT, ADR, ADN, IMDG, IATA</b></li> <li>· <b>Class</b></li> </ul>	Void
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>	Void
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>	No
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> </ul>	Not applicable.

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- |   |  |
|---|--|
| <b>· Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | Not applicable.  |
| <b>· Transport/Additional information:</b>  |  |
| <b>· DOT</b>  |  |
| <b>· Remarks:</b>   | This product is not subject to DOT regulations.  |
|   | For specific information regarding transportation of this product, please call the Pinova representative at (888) 807-2958 |
| <b>· UN "Model Regulation":</b>   | Void   |

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is not listed.
- **SECTIONS 302/304**  
This product is not an Extremely Hazardous Substance subject to reporting under 40CFR355.
- **SECTION 311 AND 312**  
NHH: Not a health hazard  
NPH: Not a physical hazard
- **CERCLA**  
This product does not contain any chemicals subject to reporting as a CERCLA Hazardous Substance under 40CFR302.4.
- **RCRA**  
This product is not a hazardous waste as listed in 40CFR261.33. It does not exhibit any of the hazardous characteristics listed in 40CFR261, Subpart C.
- **TSCA (Toxic Substances Control Act):** Substance is listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **Canadian substance listings:**
- **Canadian Domestic Substances List (DSL)** Substance is listed.
- **GHS label elements**  
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements**  
H402 Harmful to aquatic life.  
H412 Harmful to aquatic life with long lasting effects.

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### · **Precautionary statements**

*This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.*

*Observe the general safety regulations when handling chemicals.*

- P202 Do not handle until all safety precautions have been read and understood.*
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.*
- P234 Keep only in original container.*
- P261 Avoid breathing mist/vapours/spray.*
- P262 Do not get in eyes, on skin, or on clothing.*
- P264 Wash thoroughly after handling.*
- P270 Do not eat, drink or smoke when using this product.*
- P273 Avoid release to the environment.*
- P280 Wear protective gloves / eye protection.*
- P284 In case of inadequate ventilation wear respiratory protection.*
- P301+P312 IF SWALLOWED: Call a doctor if you feel unwell.*
- P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.*
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.*
- P304+P312 IF INHALED: Call a doctor if you feel unwell.*
- P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.*
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
- P314 Get medical advice/attention if you feel unwell.*
- P337+P313 If eye irritation persists: Get medical advice/attention.*
- P362 Take off contaminated clothing.*
- P402+P404 Store in a dry place. Store in a closed container.*
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.*
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*

### · **National regulations:**

### · **Information about limitation of use:**

*FOR USES INVOLVING COSMETIC OR SKIN-CONTACT APPLICATIONS:*

*Pursuant to U.S. FDA Regulation 21 CFR 740.10:*

*"WARNING: - The safety of this product has not been determined."*

### · **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

*DISCLAIMER: The information and recommendations contained in this Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the SDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.*

· **Department issuing SDS:** Regulatory Affairs

· **Contact:** MSDS@pinovasolutions.com

· **Date of preparation / last revision** 11/17/2016 / 36

### · **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organisation*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

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*IMDG: International Maritime Code for Dangerous Goods**DOT: US Department of Transportation**IATA: International Air Transport Association**ACGIH: American Conference of Governmental Industrial Hygienists**EINECS: European Inventory of Existing Commercial Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**NIOSH: National Institute for Occupational Safety**OSHA: Occupational Safety & Health**TLV: Threshold Limit Value**PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3**Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3*

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