

Safety Data Sheet

Printing date 04/24/2019

Reviewed on 02/05/2019

1 Identification

- **Product identifier**

- **Trade name:** **STAYBELITE® ESTER 3**

- **Product Description** triethylene glycol ester of partially hydrogenated wood rosin

- **Article number:** 105416

- **Application of the substance / the mixture**

Plasticizing tackifier in hot melt and pressure sensitive adhesives requiring high degrees of tack without significantly decreasing bond strength.

Adds tack to adhesives formulated with high softening point resins.

Component in cosmetics, depilatory waxes, and other personal care products

Laminating adhesives for industrial textiles

Plasticizer for wide range of film-formers

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Pinova Incorporated

2801 Cook Street

Brunswick, Georgia 31520

msds@pinovasolutions.com

- **Information department:**

Pinova, Inc. - Regulatory Affairs Department

msds@pinovasolutions.com

- **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**

The substance is not classified, according to the Globally Harmonized System (GHS).

- **Label elements**

- **GHS label elements** Void

- **Hazard pictograms** Void

- **Signal word** Void

- **Hazard statements** Void

- **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.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/fume/gas/mist/vapors/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.

P280 Wear protective gloves / eye 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.

(Contd. on page 2)

US

Safety Data Sheet

Printing date 04/24/2019

Reviewed on 02/05/2019

Trade name: STAYBELITE® ESTER 3

(Contd. of page 1)

- 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.*
- P333+P313 *If skin irritation or rash occurs: Get medical advice/attention.*
- P363 *Wash contaminated clothing before reuse.*
- 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 - Prolonged or repeated contact may cause skin irritation and may cause skin sensitization (allergic reaction) in susceptible individuals. 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)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not a PBT.
- **vPvB:** Not a vPvB.

3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No.:** 68648-53-3

· **CAS No. Description**

Resin acids and Rosin acids, hydrogenated, esters with triethylene glycol

(Contd. on page 3)

Safety Data Sheet

Printing date 04/24/2019

Reviewed on 02/05/2019

Trade name: STAYBELITE® ESTER 3

(Contd. of page 2)

· **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:**

Remove to fresh air. Get medical attention if nasal, throat or lung irritation develops.

See Note to Physician.

· **After skin contact:**

LIQUID product at ambient temperature: Wash thoroughly with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation or skin rash occurs.

HOT MOLTEN or HOT LIQUID product: Immediately cool skin burns with water and cold packs for at least 15 minutes. Do NOT put ice directly on the skin. Do NOT attempt to remove solidified resin from the skin as severe tissue damage may result. Get immediate medical attention. See Note to Physician.

· **After eye contact:**

LIQUID product at ambient temperature. 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.

HOT LIQUID product: Cool burns with plenty of low-pressure water. Get immediate medical attention.

· **After swallowing:**

No adverse health effects are expected from accidental ingestion of small amounts of this product. For ingestion of large amounts: Do NOT induce vomiting. Get immediate medical attention.

· **Information for doctor:**

This product contains rosin or a rosin derivative. Rosin and some of its derivatives have been reported to cause an allergic skin reaction (sensitization) in susceptible individuals after repeated or prolonged skin contact. Smoke or fumes generated by heating product may lead to respiratory sensitization (asthma) in susceptible individuals.

For HOT MOLTEN or HOT LIQUID product: Material should not be forcibly removed from the skin. Mineral oil may be used to loosen and soften the material.

· **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.

US

(Contd. on page 4)

Safety Data Sheet

Printing date 04/24/2019

Reviewed on 02/05/2019

Trade name: STAYBELITE® ESTER 3

(Contd. of page 3)

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Water spray, 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**
In case of fire, the following can be released:
Carbon monoxide (CO)
Carbon Dioxide (CO₂)
Aldehydes
Carboxylic acids
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.
- **Additional information** *Cool endangered receptacles with water spray.*

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
For HOT MOLTEN or HOT LIQUID product: Wear protective equipment as required (see SDS Section 8). Contain spilled material and allow it to cool and solidify. Do NOT apply water. After solidification, clean up and place in suitable containers for use or disposal.
For SOLID product: Ventilate area. Avoid dust formation. If product is not contaminated, scoop into clean containers for use. If product is contaminated, scoop into containers, and dispose appropriately. In case of accidental spills or release, refer to Section 8, Personal Protective Equipment and General Hygiene Practices.
- **Environmental precautions:** *Do not allow to enter sewers/ surface or ground water.*
- **Methods and material for containment and cleaning up:**
For small spills: Add absorbent, sweep up, and dispose properly.
For large spills: Dike to contain and pump into drums for use or disposal.
In case of accidental spill or release, refer to Section 8, Personal Protective Equipment and General Hygiene Practices.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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.
- **Protective Action Criteria for Chemicals**
- **PAC-1:** *Substance is not listed.*
- **PAC-2:** *Substance is not listed.*
- **PAC-3:** *Substance is not listed.*

US

(Contd. on page 5)

Safety Data Sheet

Printing date 04/24/2019

Reviewed on 02/05/2019

Trade name: STAYBELITE® ESTER 3

(Contd. of page 4)

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
For HOT MOLTEN or HOT LIQUID product: Use personal protective equipment as indicated in Section 8: Exposure Controls/Personal Protection.
- **Information about protection against explosions and fires:**
*Avoid conditions that generate dust; product may form flammable dust-air mixtures.
Avoid emptying package in or near flammable vapors; static charges may cause flash fire.
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 cool, dry area.
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.
If user operations generates vapor, fumes or mist: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Discharge from the ventilation system should comply with applicable air pollution control regulations.
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:**
*This product may present an inhalation health hazard if used under conditions that could generate fumes.
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.*
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
*Avoid contact with eyes, skin, and clothing.
Avoid breathing vapor or mist.
Handle in areas with adequate ventilation.
Avoid contamination of food, beverages, or smoking materials.
Wash thoroughly after handling, and before eating, drinking or smoking.
Remove contaminated clothing promptly and clean thoroughly before reuse.*

(Contd. on page 6)

Safety Data Sheet

Printing date 04/24/2019

Reviewed on 02/05/2019

Trade name: STAYBELITE® ESTER 3

(Contd. of page 5)

- **Breathing equipment:**
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
- **Eye protection:** Safety glasses
- **Body protection:**
Personnel exposed to HOT MOLTEN or HOT LIQUID material should wear protective clothing that provides protection against thermal burns. Required Protective Equipment: a) Longsleeved protective shirt, long pants and work shoes; b) Hard hat and face shield; c) Long-cuff gloves (Gauntlet type-extending beyond wrist); d) Lined rain suit with protective hood or shoulder shroud or e) Full aluminized or thermal suit with hood.

9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form: Viscous Liquid

Color: Pale amber

- **Odor:** typical rosin

- **Specific Gravity** 1.08 @ 20 °C

- **Vapor Density** heavier than air

- **Freezing Point** 20 °C

- **Change in condition**

Melting/freezing point: Liquid at ambient temperature

- **Flash point:** 190 °C (374 °F) (Cleveland Open Cup)

- **Explosive properties:** Product does not present an explosion hazard.

- **Density:**

Bulk density: Not determined

- **Solubility in / Miscibility with**

Water at 20 °C (68 °F): negligibl g/l

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

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**

None known. If this product is used at elevated temperatures, it may generate combustion products. Refer to SDS Section 5, Hazardous Combustion Products.

(Contd. on page 7)

Safety Data Sheet

Printing date 04/24/2019

Reviewed on 02/05/2019

Trade name: STAYBELITE® ESTER 3

(Contd. of page 6)

- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** None known.
- **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:**
PRODUCT/SIMILAR PRODUCT - Not toxic by OSHA/ANSI criteria based on acute animal peroral testing of this or a similar product (LD50 >5000 mg/kg). Feeding studies of this or similar products indicate no evidence of risk at anticipated workplace exposure levels. A single exposure to vapors of the material heated to 180°C for six hours, or 176°C for four hours (nominal concentration 1.8-2.0 mg/L), caused minimal treatment related effects. 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.
- **Primary irritant effect:**
- **Skin corrosion/irritation:** No irritant effect.
- **Serious eye damage/irritation:** No irritating effect.
- **Skin Sensitization:**
Smoke or fumes generated by heating may lead to respiratory sensitization (asthma) in susceptible individuals.
This product contains rosin or a rosin derivative. Rosin and some rosin derivatives have been reported to cause allergic skin reaction (sensitization) in susceptible individuals after repeated or prolonged contact.
- **Other information (about experimental toxicology):**
MUTAGENICITY/GENOTOXICITY INFORMATION: Not mutagenic based on bacterial tests of this or a similar product. Not mutagenic based on mammalian cell tests of this or similar product.
- **Additional toxicological information:** The substance is not subject to classification.
- **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:**
PRODUCT/SIMILAR PRODUCT - Acute aquatic 48-hour LC50 value falls within moderately toxic range of 1 - 10 mg/L, according to the U.S. Fish and Wildlife criteria. Test species was carp. Product was tested as a suspension.
- **Persistence and degradability**
PRODUCT/SIMILAR PRODUCT - Not readily biodegradable when tested by the Modified Sturm test protocol.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

(Contd. on page 8)

Safety Data Sheet

Printing date 04/24/2019

Reviewed on 02/05/2019

Trade name: STAYBELITE® ESTER 3

(Contd. of page 7)

- **Additional ecological information:**
- **General notes:**
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 a PBT.
- **vPvB:** Not vPvB.
- **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.
Waste water may be sent to a sanitary sewer treatment facility in accordance with any local agreement, a permitted waste treatment facility, or discharged under a permit.
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

- | | |
|--|---|
| · UN-Number | |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · UN proper shipping name | |
| · DOT, ADR, ADN, IMDG, IATA | Void |
| · Transport hazard class(es) | |
| · DOT, ADR, ADN, IMDG, IATA | |
| · Class | Void |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | Void |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · DOT | |
| · Remarks: | This product is not subject to DOT regulations. |

(Contd. on page 9)

Safety Data Sheet

Printing date 04/24/2019

Reviewed on 02/05/2019

Trade name: STAYBELITE® ESTER 3

(Contd. of page 8)

For specific information regarding transportation of this product, please call the Pinova representative at (888) 807-2958

• **UN "Model Regulation":** 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):**
This product does not contain any chemicals subject to reporting under Section 313 of Title III of the Superfund Amendments and Reauthorization Act and 40CFR372.

Substance is not listed.

- **SECTIONS 302/304**
This product is not an Extremely Hazardous Substance subject to reporting under 40CFR355.
- **SECTION 311 AND 312** Not classified
- **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.
- **New Jersey Right-to-Know List:** Substance is not listed.
- **New Jersey Special Hazardous Substance List:** Substance is not listed.
- **Pennsylvania Right-to-Know List:** Substance is not listed.
- **Pennsylvania Special Hazardous Substance List:** 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.
- **Canadian Non-Domestic Substances List (NDSL)** Substance is not listed.
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void

(Contd. on page 10)

Safety Data Sheet

Printing date 04/24/2019

Reviewed on 02/05/2019

Trade name: STAYBELITE® ESTER 3

(Contd. of page 9)

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.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/fume/gas/mist/vapors/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.

P280 Wear protective gloves / eye 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.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

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.

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 Department

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

• **Date of preparation / last revision** 04/24/2019 / 1.0

• **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)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

(Contd. on page 11)

Safety Data Sheet

Printing date 04/24/2019

Reviewed on 02/05/2019

Trade name: STAYBELITE® ESTER 3

(Contd. of page 10)

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

· **Sources Literature and company data**

· *** Data compared to the previous version altered.**

Section 15 -

SARA 311/312 physical and health hazard warnings updated to match OSHA Hazard Communications Standard 2012 Final Rule Technical Amendment effective January 1st, 2018.