



Material Safety Data Sheet

ZENOLIN

Castor Isostearate Succinate

Replaces Revision: 0208

Date of Revision: 09/11

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Zenolin

Description: INCI: Castor Isostearate Succinate
CAS No: 321573-76-6

Manufacturer: Zenitech LLC

Address: P.O. Box 44
Old Greenwich, CT 06870
01 203 698 0429 TEL
01 203-698-0429 FAX

CHEMTREC 24-HR EMERGENCY RESPONSE NUMBER:
800 424 9300

INTERNATIONAL CALLS: COLLECT 703 527 3887

CHEMTREC should only be called in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals!

Use: Plant based ester with emulsification, dispersing, conditioning and glossing properties for diversified uses in cosmetic and personal care products.

Section 2 - Hazards Identification

Classification

Classification and Specific Hazards: According to EC Directive 1999/45/EC, this product is not Classified as a "hazardous substance". According to 29 CFR 1910, this product does not contain any active material considered hazardous.

Labeling

Pictograph: No symbol

Signal Word: Not applicable

Hazard Statements: Not applicable

Precautionary Statements: Not applicable

Other Hazards Which Do Not Result in Classification: Not applicable

Section 3 – Composition/Information on Ingredients

Ingredients: Castor Isostearate Succinate

Process Method: Proprietary conjugation reaction

Section 4 - First Aid Measures

Inhalation: Short-term harmful health effects are not expected from vapor-generated at ambient temperatures. If first aid is required, move victim to fresh air.

Eye Contact: May cause some moderate eye irritation. Flush immediately with water for 15 minutes. Obtain medical attention if severe irritation occurs.

Skin Contact: May cause some irritation or discomfort. Remove contaminated clothing and wash with soap and water.

Ingestion: May cause abdominal discomfort, nausea, vomiting and diarrhea. Give two glasses of water. Do not induce vomiting. Obtain medical attention.

Protection of First Aiders: Boots, gloves, goggles. After first aid, get appropriate in-plant paramedic, or community medical support.

Section 5 - Fire-Fighting Measures

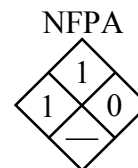
Fire and Explosion Hazards: NFPA Flammability classification 1

Flash Point: >250°C done by Pensky – Martens closed cup

Flash Point Method: ASTM D-93

Extinguishing Media: Use water spray, carbon dioxide, alcohol type or universal type foam applied in accordance with manufacturer's instructions.

Fire-Fighting instructions: Do not release runoff from fire control methods to sewers



ZENOLIN

Castor Isostearate Succinate

Replaces Revision: 0208

Date of Revision: 09/11

or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in a pressure-demand or positive-pressure mode.

Safeguards (Personnel): Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up.

Spill /Leak Procedures: Collect for disposal in accordance with applicable Federal, State, or local regulations.

Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 6 - Accidental Release Measures

Environmental Precautions: Follow applicable OSHA regulations (29 CFR 1910.120).

Safeguards (Personnel): Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up.

Spill /Leak Procedures: Collect for disposal in accordance with applicable Federal, State, or local regulations.

Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions:

Technical Measures: (Personnel) Safety glasses and PVC gloves!

Protection Against Explosions and Fires: Keep away from open flame.

Storage Requirements: Store in cool (ideally 15 – 25°C), dry, tightly closed container. Keep container tightly closed.

Section 8 - Exposure Controls / Personal Protection

Precautionary Statements: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Engineering Controls: No special engineering controls are required under normal use.

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative Controls:

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear an MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.

Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes! Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

ZENOLIN

Castor Isostearate Succinate

Replaces Revision: 0208

Date of Revision: 09/11

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance and Odor: Clear Amber & Mild Odor

Specific Gravity (H₂O=1, at 25 °C): 0.99 gm/ml @ 25°C

Self-Igniting: N/A

Water Solubility: Insoluble

Boiling Point: >100°C@ 760mmHg

Freezing/Melting Point: N/A

Section 10 - Stability and Reactivity

Stability: Stable at room temperature in closed containers under normal storage and handling conditions

Hazardous Reactions: No hazardous reactions known

Conditions to Avoid: No dangerous reactions known under use of normal conditions

Chemical Incompatibilities: None known

Hazardous Decomposition Products: Not applicable

Section 11- Toxicological Information

Acute Toxicity Data: No known toxicological effects

Local Effects: No known toxicological effects

Sensitization: No known toxicological effects

Specific Effects

Carcinogenicity: No known toxicological effects

Mutagenicity: No known toxicological effects

Reproductive Toxicity: No known toxicological effects

Neurotoxicity: No known toxicological effects

Other Information: Does not present any particular risk on handling under normal conditions of good occupational hygiene practice

Section 12 - Ecological Information

Mobility: No known negative ecological effect; part of the water cycle

Environmental Behavior: Does not disturb the environment

Ecotoxicity

Effects on the Aquatic Environment: No known toxicological effects

Section 13 - Disposal Considerations

Contaminated Packaging

Decontamination/Cleaning: Cleaning is not required prior to disposal

Destruction/Disposal: Incinerate at installation suitable for this type of packaging

Recommendations About Product: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable federal, state, and local regulations!

ZENOLIN

Castor Isostearate Succinate

Replaces Revision: 0208

Date of Revision: 09/11

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Not regulated

Hazard Class: 1

Land Transport ADR/RID (Cross-Border): Not restricted

Inland Shipping ADN: Not restricted

Maritime Transport IMDG: Not restricted

Air Transport ICAO-TI and IATA-DGR: Not restricted

Section 15 - Regulatory Information

Markings According to EU Guidelines: The substance is not subject to classification according to the Directives 67/548/EEC and 88/379/EEC. All compounds of the substance are recorded into European inventory EINECS (European Inventory of Existing Chemical Substances)-Directives 79/831/EEC, sixth modification of directive 67/548/EEC.

International Rules

USA:

TSCA Inventory Status: EXEMPT

EPA Regulations: EXEMPT

State Regulations:

State	Component	CAS #	Wt.
CALIFORNIA, PROP. 65	NONE		

Germany: Wassergefährdungsklasse (WGK) : 1 (little polluting)

Section 16 - Other Information

Regulatory Requirements Relative to the Distribution of This MSDS : In accordance with regulatory requirements, all information in the MSDS must be transmitted by the MSDS recipient to the health authorities, to any party receiving the products and to any other person likely to be exposed to the products.

MSDS Summary of Changes: Changes were based on Korean industrial safety and hygiene laws and Zenitech LLC internal rules.

Liability Statement: We believe the information contained herein is current as of the date of this Material Safety Data Sheet.

Because the use of this information and of these opinions and the conditions of use of the product are not within our control, it is the user's obligation to determine the conditions of safe use of this product.