

Safety Data Sheet

C-TEC ZST

SDS No. 9710.9

Date of Preparation: 3/18/97

Revision: 5/12/21

Section 1 - Chemical Product and Company Identification

Product Identifier: C-TEC ZST

Other means of identification: Zinc Stannate

Recommended Use: Fire retardant.

Manufacturer: Marshall Additive Technologies

Division of the R. J. Marshall Company

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Date Revised: 5/12/21

Preparer: Stephanie Nichols

Section 2 - Hazards Identification

Classification of the chemical under paragraph (d) of 1910.1200: Not hazardous

Signal word: None

Symbol: None

Hazard Statements: None

Precautionary Statements: None

HMIS

H 1

F 0

R 0

PPE[†] E

[†]Sec. 8

Hazards not otherwise classified: None

Section 3 - Composition / Information on Ingredients

Ingredient Name	CAS Number	EINECS	Percent by Weight
Zinc Stannate	12036-37-2	405-290-6	Max 100.0

Section 4 - First Aid Measures

Description of necessary measures subdivided according to the different route of exposure:

Inhalation: If symptoms such as nose or throat irritation are observed, remove the person to fresh air. No specific treatment is necessary.

Skin: Non-irritating. Wash the area with soap and water.

Eye Contact: Use an eyewash fountain or fresh water to clean the eyes. If irritation persists for more than 30 minutes, seek medical attention.

Ingestion: Not intended for ingestion. Swallowing small amounts (one teaspoon) will cause no harm to healthy adults. If larger amounts are swallowed, give two glasses of water to drink and seek medical attention.

Most important symptoms/effects, acute and delayed:

Inhalation: Accidental inhalation of dust at levels greater than 10 mg/m³ may cause light irritation to the respiratory system.

Indication of immediate medical attention and special treatment needed, if necessary: Supportive care only is required for adult ingestion of less than a few grams of the product. For ingestion of larger amounts, maintain fluid and electrolyte balance and maintain adequate kidney function. Gastric lavage is only recommended for heavily exposed symptomatic patients in whom emesis has not emptied the stomach. Hemodialysis should be reserved for patients with massive acute absorption, especially for patients with compromised renal function.

Section 5 - Fire-Fighting Measures

Suitable Extinguishing Media: Any media may be used on the fire. Use appropriate media for surrounding fire.

Unsuitable Extinguishing Media: None

Unusual Fire or Explosion Hazards: None known.

Hazardous Combustion Products: None known.

Specific hazards arising from the product: None known.

Special protective equipment and precautions for firefighters: Do not release runoff from fire control methods to sewers or waterways. Apply standard procedures. No specific precaution is necessary.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Wear safety glasses.

Environmental precautions: Material is soluble in water and can cause damage to the plants or vegetation through absorption by the roots. Avoid contamination of water bodies during cleaning and disposal.

Methods and materials for containment and clean up: Sweep up dry powder and properly dispose of it. Prevent spills in water and cover discharges.

Section 7 - Handling and Storage

Precautions for safe handling: Avoid generating dust during handling. Handle the product in a well-ventilated location. Rinse hands after handling and before eating, drinking, or smoking.

Storage Requirements: Store in a dry, cool, well-ventilated area away from strong reducing agents. To avoid product damage: limit humidity, protect from light, keep at a temperature between 23°F (-5°C) and 104°F (40°C).

Section 8 - Exposure Controls / Personal Protection

Control Parameters:

Ingredient	OSHA PEL		ACGIH TLV	
	TWA	STEL	TWA	STEL
Inorganic Tin Compounds	2 mg/m ³	none established	2 mg/m ³	none established

Note: To report for Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.0 the maximum percent by weight Zinc content is 28.17.

Engineering Controls:

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:

Protective Clothing/Equipment: Wear suitable protective clothing, gloves, and eye/face protection.

Hand: Use suitable protective gloves.

Eye: Wear safety glasses for long exposures and high concentration levels.

Skin: Wear conventional work clothes.

Respiratory: Wear an approved dust mask for long exposures and high concentration levels.

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

Comments: 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.

Section 9 - Physical and Chemical Properties

Appearance: white powder

Odor: Odorless

Odor Threshold: not applicable

pH: 7 @ 68°F (20°C) (20% aqueous solution)

Freezing/Melting Point: >932°F (>500°C)

Boiling Point: not applicable

Flash Point: not applicable

Flash Point Method: not applicable

Evaporation Rate: not applicable

Flammability: Non-flammable, non-combustible.

Upper/lower flammability or explosive limits: not applicable

Vapor Pressure: negligible @ 68°F (20°C)

Vapor Density (Air=1): not applicable

Relative Density: n/a

Specific Gravity (H₂O=1, at 4 °C): 3.9

Water Solubility: 0.003% @ 68°F (20°C)

Other Solubilities: Soluble in strong acids and bases.

Partition coefficient: n-octanol/water; not determined

Auto-ignition Temperature: Not determined.

Decomposition temperature: not determined

Viscosity: not applicable

Section 10 - Stability and Reactivity

Reactivity: None known

Chemical Stability: This product is stable at room temperature in closed containers under normal storage and handling conditions.

Possibility of hazardous reactions: Reaction with strong reducing agents such as metal hydrides and alkali metals, generates hydrogen gas which may cause a danger of explosion.

Conditions to Avoid: Avoid contact with strong reducing agents.

Incompatible materials: Strong reducing agents.

Hazardous Decomposition Products: None

Section 11- Toxicological Information

Information on the likely routes of exposure:

Ingestion: Low acute oral toxicity. LD₅₀ rats >5000 mg/kg bw No specific health warnings noted.

Inhalation: Low acute inhalation toxicity; LC₅₀ rats >4.35 mg/l/4hr.

Skin: Low acute dermal toxicity; LD₅₀ rats >2466 mg/kg bw. No specific health warnings were noted.

Eye: No data available.

Symptoms related to the physical, chemical, and toxicological characteristics:

Ingestion: Ingestion unlikely. Large quantities swallowed could cause choking.

Inhalation: Dust may irritate the respiratory system or lungs.

Skin: Frequent or prolonged contact may cause mild skin discomfort.

Eye: Particles in the eyes may cause irritation and redness.

Delayed and immediate effects and chronic effects from short- and long-term exposure: None known.

Carcinogenicity: This product is not considered carcinogenic by OSHA, IARC, NTP, and ACGIH.

Mutagenicity: No evidence found

Reproductive toxicity: No evidence found

Chronic toxicity: No evidence found

Sensitizing properties: Frequent or prolonged contact may cause mild skin discomfort.

Section 12 - Ecological Information

Ecotoxicity:

Fish- LC50 (96 hrs.): >3.3 rainbow trout

Daphnia: EC₅₀ (48 hrs.): >3.3 mg/l

Persistence and degradability: Not Applicable-Inorganic chemical

Bioaccumulative potential: Not Applicable-Inorganic chemical

Mobility in soil: expected to be immobile in soil due to its low solubility

PBT/vPvB Evaluation: Not Applicable-Inorganic chemical

Other adverse effects: not regarded as dangerous for the environment.

Water hazard classification: no data available

Section 13 - Disposal Considerations

Disposal: Recycle if possible or landfill. Do not disperse in the city drain or watercourse. Contaminated packaging must be completely emptied, segregated, and disposed of as general waste.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101): This product is not classified as dangerous under the transport regulations for road, rail, sea, or air transport.

UN number: not classified

UN proper shipping name: not classified

Transport hazard classes: not classified

Packing group: not classified

Environmental hazards: not classified

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): not classified

Special precautions: None

Section 15 - Regulatory Information

EPA Regulations:

CAA Section 112: Not listed
 RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)
 RCRA Hazardous Waste Classification: Not classified
 CERCLA Hazardous Substance (40 CFR 302.4) Not listed
 SARA Toxic Chemical (Section 313) (40 CFR 372.65): Not listed
 SARA EHS (Section 302) (Extremely Hazardous Substance) (40 CFR 355): Not listed
 Zinc or Zinc Compounds (N982) are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.0.
 Subject to consent order under Section 5(e)
 Commenced PMN
 Proposed or Final Significant New Use Rule

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

TSCA & INTERNATIONAL REGULATIONS

TSCA-Listed	CANADA-Listed NDSL	EUROPE-Listed on EINECS: EC# 405-290-6	KOREA-Listed ON ECL: Serial # 2001-3-1822	ASIA-PAC-Listed
New Zealand-Listed on NZIoC	China-Not Listed	Japan-Listed on ENCS MITI # 1-1238	Taiwan-Listed	Philippines-Not Listed
Australia-Not Listed				

Clean Air Act (Montreal Protocol): Regulation EC No 2037/2000: Substances that deplete the ozone layer-Not manufactured with and does not contain any Group I or Group II ozone-depleting substances.

Regulation EC No 689/2008-Export and Import of Dangerous Chemicals: Not listed.

California Prop 65: Not listed

Section 16 - Other Information

Prepared By: Stephanie Nichols

Revision Notes: 5/12/21

Product Grades Available from the R. J. Marshall Company (this list may be incomplete):

C-TEC ZST

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