

Safety Data Sheet

C-TEC ZHS

MSDS No. 9765.11

Date of Preparation: 5/21/97

Revision: 2/15/13

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: C-TEC ZHS

Synonyms: Charring agent.

General Use: Flame retardant in plastics, rubbers, and resins.

Manufacturer: Marshall Additive Technologies

Division of the R. J. Marshall Company

26776 W. 12 Mile Road

Southfield, MI 48034-7807

Phone: (248) 353-4100, Fax: (248) 948-6460

Emergency Phone: (800) 424-9300

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Preparer: Stephanie Nichols

Section 2 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

HMIS

H 1

F 0

R 0

PPE† E

†Sec. 8

Not regulated under EC Directive 1272/2008/EC.

Not regulated or classified as dangerous under EC Directive 67/548/EC.

Label Elements: Not classified

Reproductive/Developmental: None known.

Potential Health Effects

Primary Entry Routes: Inhalation, Eye, and Ingestion.

Acute Effects

Inhalation: May cause irritation to the respiratory tract as a particulate nuisance.

Eye: May cause irritation through mechanical abrasion.

Skin: Drying of the skin can occur.

Ingestion: Choking may occur if large quantities are swallowed.

Section 3 - Composition / Information on Ingredients

Ingredient Name	CAS Number	Percent by Weight
Zinc Hydroxy Stannate	12027-96-2	Max 100.0

Trace Impurities:

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

Note: For the purpose of reporting 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 23.5.

Section 4 - First Aid Measures

Inhalation: If overcome by high dust concentrations, remove to a ventilated area. Seek medical advice if symptoms persist.

Eye Contact: Flush eyes thoroughly for 15 minutes taking care to rinse under eyelids. Do not scrub. Abrasion may cause irritation. If discomfort continues, continue to wash with water. If irritation persists, consult a physician.

Skin Contact: Wash skin thoroughly with soap and water for at least 15 minutes. Consult a physician if irritation persists.

Ingestion: Rinse mouth thoroughly. Drink a few glasses of water or milk. Get medical attention immediately!

After first aid, get appropriate in-plant, paramedic, or community medical support.

Note to Physicians: n/a

Special Precautions/Procedures: n/a

Section 5 - Fire-Fighting Measures

Flash Point: n/a
Flash Point Method: n/a
Burning Rate: Not determined.
Auto-ignition Temperature: Not self-ignitable.
Flammability Classification: Non-flammable.
Extinguishing Media: The material is not combustible. Use extinguishing media appropriate for surrounding fire.
Unusual Fire or Explosion Hazards: Burning produces irritant fumes.
Hazardous Combustion Products: None known.
Fire-Fighting Instructions: Do not flush into surface water or sanitary sewer system.
Fire-Fighting Equipment: Wear SCBA for fire fighting if necessary.

Section 6 - Accidental Release Measures

Spill /Leak Procedures: Sweep up spillages and place into clean containers. Avoid generation and spreading of dust. Use approved respiratory equipment if excessive amounts of dust are present. Flush with plenty of water to clean spillage area.
Regulatory Requirements: Avoid release to natural watercourses. Wastewater must be disposed of in accordance with national and local regulations.

Section 7 - Handling and Storage

Handling Precautions: Avoid contact with skin and eyes. Ensure adequate ventilation or exhaust ventilation in the working area.
Storage Requirements: S8: Keep container dry and store tightly closed containers in cool, dry, well-ventilated area.
Shelf Life: 12 months when stored in dry, cool, well ventilated area.

Section 8 - Exposure Controls / Personal Protection

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:
Respiratory Protection: If ventilation is insufficient wear approved dust mask or respirator.
Protective Clothing/Equipment: Use suitable protective gloves made of butyl rubber, nitrile, or pvc.
Safety Stations: Make emergency eyewash stations 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.
Comments: S20/21: Do not 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

Physical State: white powder	Water Solubility: Insoluble.
Appearance and Odor: white odorless powder	Other Solubilities: Strong acids and bases.
Odor Threshold: n/e	Boiling Point: n/a
Vapor Pressure: n/e	Freezing/Melting Point: n/a
Vapor Density (Air=1): n/a	Viscosity: n/a
Formula Weight: 286.15	Refractive Index: n/a
Density: n/a	Surface Tension: n/a
Specific Gravity (H₂O=1, at 4 °C): 3.3	% Volatile: n/a
pH: 7 (aqueous filtrate of 20% suspension)	Evaporation Rate: n/a

Section 10 - Stability and Reactivity

Stability: This product is stable at room temperature in closed containers under normal storage and handling conditions.
Polymerization: Hazardous polymerization cannot occur.
Chemical Incompatibilities: None known.
Conditions to Avoid: None known.
Hazardous Decomposition Products: n/a

Section 11- Toxicological Information**Toxicity Data:***

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

Acute Inhalation Effects: LC₅₀ Rat: >4.35mg/l (1/4 hr). Dust may irritate respiratory system or lungs.

Skin Effects: LD₅₀ Rat: >2466mg/kg.

Acute Oral Effects: LD₅₀ Rat: >5000mg/kg

Chronic Effects: None known.

Carcinogenicity: Neither this product nor any of its components are considered carcinogenic by OSHA, IARC, NTP, or ACGIH.

Medical Conditions Aggravated by Long-Term Exposure: Chronic respiratory disease.

Section 12 - Ecological Information

Acute toxicity to fish: No observed effect LC₅₀ >3.3mg/l (96hrs)

Acute toxicity to Daphnia: No observed effect EC₅₀ >3.3mg/l (48hrs)

Test carried out up to solubility limit.

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.

Section 13 - Disposal Considerations

Disposal: With clean shovel place material into dry container, cover, and move. Confirm disposal procedures with environmental engineer and local regulations. Dispose of in accordance with local authority requirements.

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.

Section 15 - Regulatory Information**EPA Regulations:**

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 (40 CFR 372.65): Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed

Zinc or Zinc Compounds 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.

OSHA Regulations:

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

TSCA

This substance or all of its components are on the Chemical Substances Inventory of the Toxic Substance Control Act (TSCA Inventory [USA]).

Subject to Section 5(e) consent order.

A commenced PMN substance.

Identified in a proposed or final SNUR.

INTERNATIONAL REGULATIONS

Australia: Listed on AICS.

Canada: This product is listed on the Canadian NDSL.

China: Listed on IECSC.

Europe: This product is listed on EINECS, #404-410-4.

Japan: Listed on ENCS.

Korea: Listed on ECI, number 2001-3-1701.

New Zealand: Listed on NZIoC.

Taiwan: Listed on NECI.

Section 16 - Other Information

Prepared By: Stephanie Nichols

Revision Notes: 2/15/13

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

C-TEC ZHS

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