

# Safety Data Sheet

C-TEC ZHS

MSDS No. 9765.13

Date of Preparation: 5/21/97

Revision: 4/2/15

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** C-TEC ZHS

**Synonyms:** zinc hydroxystannate

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

**Manufacturer:** Marshall Additive Technologies

Division of the R. J. Marshall Company

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**Date Revised:** 4/2/15

**Preparer:** Stephanie Nichols

## Section 2 - Hazards Identification

**Classification of the chemical in accordance with paragraph (d) of 1910.1200:**

**Signal word:** None

**Symbol:** None

**Hazard Statements:** not applicable

**Precautionary Statements:** not applicable

Safety phrases: not applicable

Risk phrases: not applicable

**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	Percent by Weight
Zinc Hydroxy Stannate	12027-96-2	Max 100.0

## Section 4 - First Aid Measures

**Inhalation:** Accidental inhalation of dust at greater than 10mg/m<sup>3</sup> may cause light irritation to the respiratory system. Remove person to fresh air if symptoms are observed. No specific treatment necessary.

**Eye Contact:** May cause eye irritation. Rinse eyes with fresh water or eye wash fountain. If irritation persists for than 30 minutes, seek medical attention.

**Skin Contact:** May cause drying of the skin. If irritation appears, wash thoroughly with soap and water.

**Ingestion:** Small amounts (tsp or less) swallowed accidentally are not likely to cause effects. Swallowing amounts larger than 1 tsp may cause gastrointestinal symptoms. Choking may occur if large quantities are swallowed. Drink a few glasses of water or milk. Seek medical attention. Maintain adequate kidney function and force fluid. Gastric lavage is recommended for symptomatic patients only. Hemodialysis should be reserved for massive acute ingestion or patients with renal failure.

## Section 5 - Fire-Fighting Measures

**Suitable Extinguishing Media:** The material is not combustible. Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** none

**Unusual Fire or Explosion Hazards:** Burning produces irritant fumes.

**Hazardous Combustion Products:** None known.

## Section 6 - Accidental Release Measures

**Personal precautions, protective equipment, and emergency procedures:** Wear goggles (class P1) and glasses when exposure is prolonged and there is a high concentration in the air.

**Methods and materials for containment and cleaning up:** Sweep up spillages and place into clean containers. Avoid generation and spreading of dust. 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

**Precautions for safe handling:** Avoid contact with skin and eyes. Ensure adequate ventilation or exhaust ventilation in the working area. Rinse hands after handling and before eating, drinking, or smoking.

**Storage Requirements:** S8: Keep container dry and store tightly closed containers in cool, dry, well-ventilated area. Limit humidity, protect from light, keep at a temperature between 23°F (-5°C) and 104°F (40°C).

**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. Wear safety glasses 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:** 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.

Ingredient	OSHA PEL		ACGIH TLV	
	TWA	STEL	TWA	STEL
Inorganic Tin Compounds	2 mg/m <sup>3</sup>	None established	2 mg/m <sup>3</sup>	None established

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 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:** not applicable

**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:** 3.3

**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:** None known.

**Conditions to Avoid:** High temperatures and direct contact with fire or heat sources.

**Incompatible materials:** None known.

**Hazardous Decomposition Products:** None

## Section 11- Toxicological Information

**Information on the likely routes of exposure:**

**Ingestion:** Low acute oral toxicity. LD<sub>50</sub> rats >5000 mg/kg bw No specific health warnings noted.

**Inhalation:** Low acute inhalation toxicity; LC<sub>50</sub> rats >4.35 mg/l/4hr.

**Skin:** Low acute dermal toxicity; LD<sub>50</sub> rats >2466 mg/kg bw. No specific health warnings 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 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 also 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

## Section 12 - Ecological Information

**Ecotoxicity:**

Acute toxicity to fish: No observed effect LC<sub>50</sub> >3.3mg/l (96hrs) Rainbow Trout

Acute toxicity to Daphnia: No observed effect EC<sub>50</sub> >3.3mg/l (48hrs)

**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.

**Results of PBT and vPvB assessment:** 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:** Dispose of in accordance with local authority requirements. Do not disperse in 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:**

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 NECL.

**Section 16 - Other Information**

**Prepared By:** Stephanie Nichols

**Revision Notes:** 4/2/15

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

C-TEC ZHS
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