

Safety Data Sheet

FSD508 & FSD510

SDS No. 9947.0

Date of Preparation: 1/14/21

Revision: 1/14/21

Section 1 - Chemical Product and Company Identification

Product Identifier: FSD508 & FSD510

Other means of identification: Flame and Smoke Defense 508 & 510

Recommended use: Fire retardant.

Manufacturer: Marshall Additive Technologies

Division of the R. J. Marshall Company

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Section 2 - Hazards Identification

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

Carcinogenicity: Class 1

Signal Word: Danger



Symbols:

Hazard Statements:

May cause cancer by inhalation.

Precautionary Statements:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.

If exposed or concerned: Get medical advice/attention.

Dispose of contents in accordance with local regulations.

Store locked up.

Hazards not otherwise classified: None

Section 3 - Composition / Information on Ingredients

Ingredient Name	CAS Number	Percent by Weight
Zinc Compounds	N982	Max 50.0%
Crystalline Silica	14808-60-7	Max 0.3%

There are no other ingredients that are classified as health hazards.

Section 4 - First Aid Measures

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

Inhalation: If experiencing respiratory symptoms, remove to a ventilated area and seek medical attention.

Eye Contact: If in eyes, flush eyes thoroughly taking care to rinse under eyelids. Do not scrub. Abrasion may cause irritation. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, consult a physician.

Skin Contact: Wash with soap and water. Consult a physician if irritation persists.

Ingestion: Rinse mouth with water.

Most important symptoms/effects, acute and delayed:

Inhalation: May cause respiratory irritation.

Eye Contact: May cause irritation.

Skin Contact: May cause irritation.

Ingestion: May cause irritation of the gastrointestinal tract.

Indication of immediate medical attention and special treatment: None anticipated.

Section 5 - Fire-Fighting Measures

Suitable Extinguishing Media: Water spray, carbon dioxide, or other dry chemicals.

Unsuitable Extinguishing Media: None known.

Unusual Fire or Explosion Hazards: None known.

Specific hazards arising from the product: None known.

Special protective equipment and precautions for firefighters: Use equipment necessary for surrounding fire.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures:

Avoid formation and inhalation of dust. Ensure adequate ventilation. Keep unprotected persons away. Although the substance has no acute toxicity, it is advised to avoid contact with skin, eyes, and clothing-wear suitable PPE.

Environmental precautions: It is advised that in the event of an accidental release the product should be prevented from reaching the sewage system or any water course and penetrating the soil. Dispose of spilled material in accordance with the relevant regulations.

Methods and materials for containment and cleaning up: Avoid dust formation. Sweep up all spilled material or use an appropriate industrial vacuum cleaner. Collect spilled material in suitable containers or closed plastic bags for recovery or disposal.

Section 7 - Handling and Storage

Precautions for safe handling:

Protective measures: Do not handle until all safety precautions have been read and understood. As a precautionary measure, the wearing of chemical resistant gloves, long-sleeved overalls, and closed footwear designed to minimize skin contact is suggested. Use PPE as required. Provide showers, eyewash, and self-contained breathing apparatus nearby.

Advice on general occupation hygiene: Avoid inhalation or ingestion. General occupational hygiene measures are required to ensure the safe handling of the substance. These measures involved good personal and housekeeping practices (i.e., regular cleaning with suitable cleaning devices), no eating, drinking, or smoking at the workplace, and wearing standard working clothes and shoes unless otherwise stated. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Shower and change clothes at the end of the work shift. Do not wear contaminated clothing at home. Do not blow dust off with compressed air.

Conditions for safe storage, including any incompatibilities: Store in a well-ventilated dry area. Do not store in open inadequate mislabeled packaging.

Section 8 - Exposure Controls / Personal Protection

Control parameters:

Ingredient	OSHA PEL		ACGIH TLV	
	TWA	STEL	TWA	STEL
Crystalline Silica	0.05 mg/m ³ respirable dust	None established	.025 mg/m ³ respirable	None established
Particulates not otherwise classified	15 mg/m ³ total dust 5 mg/m ³ respirable dust	None established	None established	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 30%.

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:

Prevent the formation of dust where possible. Any deposit of dust which cannot be avoided must be regularly removed using preferably appropriate industrial vacuum cleaners or central vacuum systems.

Waste air is to be released into the atmosphere only when it has passed through suitable dust separators.

Wastewater generated during the production process or cleaning operations should be collected and should preferably be treated in an on-site wastewater treatment plant which ensures efficient removal of antimony.

Respiratory Protection: Use NIOSH/MSHA approved dust respirator if a risk assessment indicates it is necessary.

Recommended: disposable particulate mask.

Protective Clothing/Equipment:

Gloves: Any dust-tight material (e.g., rubber-dipped cotton/rubber/nitrile/leather) suitable for the type of work could be used as material for gloves protecting against exposure (non-corrosive inorganic substance). Breakthrough times are not relevant because corrosion and diffusion are excluded by the nature of the substance. Change gloves when damaged or according to the manufacturer's instructions.

Other: Long-sleeves, closed footwear, and safety glasses are recommended.

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	Vapor Pressure: not applicable
Odor: odorless	Vapor Density (Air=1): not applicable
Odor Threshold: not applicable	Relative Density: 3.15-3.30
pH: not established	Water Solubility: Very slight.
Freezing/Melting Point: not applicable	Other Solubilities: not applicable
Boiling Point: not applicable	Partition coefficient: n-octanol/water; not established
Flash Point: not applicable	Auto-ignition Temperature: Not determined.
Flash Point Method: not applicable	Decomposition Temperature: not determined
Evaporation Rate: not applicable	Viscosity: not applicable
Flammability: Non-flammable.	
Upper/lower flammability limits: not applicable	

Section 10 - Stability and Reactivity

Reactivity: Hazardous polymerization cannot occur.

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 or alkali metals will generate hydrogen gas which could create an explosive hazard.

Conditions to Avoid: Extreme humidity.

Incompatible Materials: Strong reducing agents.

Hazardous Decomposition Products: None known.

Section 11- Toxicological Information

Information on the likely routes of exposure: Inhalation, Eye, and Ingestion.

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

Inhalation:

Eye: May cause irritation through mechanical abrasion.

Skin: May cause irritation through mechanical abrasion. May cause skin rashes with itching.

Ingestion: May cause irritation of the gastrointestinal tract.

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

Numerical measures of toxicity: Not determined.

Carcinogenicity: IARC and NTP have listed crystalline silica as a human carcinogen.

Section 12 - Ecological Information

Eco-toxicity: Zinc compounds are very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Persistence and degradability: Not applicable to inorganic substances.

Bio-accumulative potential: No information available.

Mobility in soil: No information available.

Results of PBT and vPvB assessment: The PBT and vPvB criteria of Annex XIII to the Regulation do not apply to inorganic substances.

Section 13 - Disposal Considerations

Waste treatment methods: State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state, and local requirements. The used packaging is only meant for packing this product. After usage, empty the packaging completely.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):
UN Number: 3077

UN proper shipping name: Environmentally Hazardous Substance, Solid, n.o.s.

Transport hazard class: 9

Packaging group: III

Environmental hazards: Marine pollutant

Special precautions for user: Not available

Transport in bulk according to Annex II or MARPOL72/78 and the IBC Code: Not available

Reportable Quantity: RQ =3800#. When transported in packages less than the RQ, this material is NOT a DOT hazardous material.

Not regulated under Canadian Transportation of Dangerous Goods (TDG).

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): RQ 3800#

SARA Toxic Chemical (40 CFR 372.65): Zinc Compounds N982

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.

Prop65: **⚠ WARNING:** This product can expose you to chemicals including crystalline silica, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

OSHA Regulations:

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

TSCA

This substance or all its components are on the Chemical Substances Inventory of the Toxic Substance Control Act (TSCA Inventory [USA]). Please note that this product is not subject to any legal reporting requirements under these acts.

INTERNATIONAL REGULATIONS-This product or all its components are listed on the following inventories:

Australia AICS

Canadian DSL

China IECSC

European Union EINECS

Japan ENCS

Korea ECL

Philippines PICCS

Taiwan NECI

Section 16 - Other Information

Prepared By: Stephanie Nichols

Revision Notes: original

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

FSD508	FSD510
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