

Safety Data Sheet

Flame & Smoke Defense 479 & 485

SDS No. 9643.1

Date of Preparation: 2/25/20

Revision: 7/8/20

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Flame & Smoke Defense 479 (FSD479) & 485 (FSD485)

Recommended use of the chemical: Flame and smoke retardant additive.

Restrictions on use: None identified.

Supplier: Marshall Additive Technologies

Division of the R. J. Marshall Company

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Date Revised: 7/8/20

Preparer: Stephanie Nichols

Section 2 - Hazards Identification

Classification of the chemical in accordance with paragraph (d) of 1910.1200: Non-hazardous

Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008 (CLP): Not classified

Classification according to Directive 67/548/EEC or Directive 1999/45/EC: Not classified

Signal Word: None

Hazard Pictogram: None

Hazard Statements: None

Precautionary Statements: None

Other hazards: None

HMIS Rating: H: 1 F: 0 R: 0

Section 3 - Composition / Information on Ingredients

Ingredient Name	CAS Number	Percent by Weight
Particulates not otherwise regulated	-----	100%

Impurities and stabilizing additions: None

Section 4 - First Aid Measures

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

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and get medical attention.

Eye Contact: Rinse with plenty of running water for 15 minutes occasionally lifting the upper and lower eyelids. Remove contact lenses if easily possible. Seek medical advice if irritation develops and persists.

Skin Contact: Wash affected skin area with plenty of water and soap thoroughly while removing contaminated clothing and shoes. Seek medical advice if irritation develops and persists.

Ingestion: Wash out mouth with plenty of water. If large quantities are ingested give 2 glasses of water to drink and seek medical attention. Never give anything by mouth to an unconscious person.

Note to Physicians: Treat symptomatically.

Most important symptoms and effects, both acute and delayed: Accidental inhalation of dust at levels greater than 10 mg/m³ may cause light irritation the respiratory system.

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

Section 5 - Fire-Fighting Measures

Suitable Extinguishing Media: Use fire extinguished media suitable to the surrounding environment.

Unsuitable Extinguishing Media: None known.

Special hazards arising from the substance or mixture: None known.

Hazardous Combustion Products: None.

Fire-Fighting Instructions: Decomposition in the event of a fire may emit toxic fumes.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Wear appropriate personal protective equipment during cleaning. Avoid contact with eyes and skin. Avoid inhalation. Avoid dust formation.

Environmental precautions: Avoid large quantities entering sewer system.

Methods and materials for containment and cleaning up: Sweep up into suitable containers for recovery or disposal.

Section 7 - Handling and Storage

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work. Provide good ventilation in process area to prevent formation of dust.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well-ventilated place. Keep containers tightly closed.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls:

Ventilation: Use local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits.

Respiratory Protection: Use a FFP1 mask if ventilation is insufficient.

Hand Protection: Gloves are suggested.

Eye Protection: Safety glasses with side shields or goggles.

Protective Clothing: Wear overalls or other conventional working clothes.

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.

Exposure Limits:

Ingredient	OSHA PEL		ACGIH	
	TWA	STEL	TWA	STEL
Particulates not otherwise classified	15 mg/m ³ total dust 5 mg/m ³ respirable	None established	None established	None established

Section 9 - Physical and Chemical Properties

Physical State: powder

Appearance and Odor: white odorless

Odor Threshold: not applicable

pH: not determined

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

Boiling Point: not applicable

Flash Point: None known.

Flash Point Method: not applicable

Evaporation Rate: not applicable

Flammability: Non-flammable.

Upper/lower flammability or explosive limits: not flammable

Vapor Pressure: not applicable

Vapor Density (Air=1): not applicable

Formula Weight: n/a

Relative Density: not determined

Solubility: Not determined

Partition coefficient: n-octanol/water; not applicable

Decomposition Temp: not determined

Viscosity: not applicable

Section 10 - Stability and Reactivity

Reactivity: May react violently with chlorine trifluoride and bromine trifluoride.

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 hydride and alkali metals generates hydrogen gas which may cause a danger of explosion.

Conditions to Avoid: Avoid contact with strong reducing agents by storing the product in accordance with good industrial practices. High air humidity, sunlight exposure, temperatures under 23°F (-5°C) and over 104°F (40°C).

Incompatible materials: Strong alkalis, strong acids, and strong reducing agents.

Hazardous Decomposition Products: Decomposition may produce toxic fumes of metal oxides.

Section 11- Toxicological Information

Information on the likely routes of exposure: Inhalation, Eye, Skin

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

Inhalation: May cause irritation.

Eye: May cause irritation through mechanical abrasion.

Skin: May cause irritation through mechanical abrasion.

Ingestion: No symptoms at low dosages. May cause choking if large quantities are ingested.

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

Numerical measures of toxicity: Not available

Skin corrosion/Irritation: Can cause temporary irritation

Serious eye damage/eye irritation: Can cause temporary irritation

Skin sensitization: Not a skin sensitizer

Sub-acute toxicity: No information available.

Germ cell mutagenicity: Not mutagenic

Reproductive toxicity: None known

STOT-single exposure: None known

STOT-repeat exposure: None known

Carcinogenicity: Not carcinogenic by NTP, IARC, OSHA, or ACGIH.

Section 12 - Ecological Information

Eco-toxicity: Not toxic to the environment.

Persistence and degradability: Not readily biodegradable.

Bio-accumulative potential: Not applicable.

Mobility in soil: No additional information available.

Results of PBT and vPvB assessment: not applicable.

Section 13 - Disposal Considerations

Disposal: Recycle if possible or landfill. This substance is inert and does not require special disposal methods. Follow applicable Federal, state, and local regulations.

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 regulated

UN proper shipping name: n/a

Transport hazard class: n/a

Packing group: n/a

Environmental hazards: n/a

Special precautions for user: n/a

Transport in bulk according to Annex II or MARPOL 73/78 and the IBC code: n/a

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

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]). Please note that this product is not subject to any legal reporting requirements under these acts.

INTERNATIONAL REGULATIONS

Australia: Listed on AICS.
Canadian: Listed
China: Listed on IECSC
Europe: Listed on EINECS

Korea: Listed on ECL
New Zealand: Listed on NZIoC
Taiwan NECI: Listed

Section 16 - Other Information

Prepared By: Stephanie Nichols

Revision Notes: added FSD485

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

FSD479	FSD485
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