

Safety Data Sheet

C-TEC MO

MSDS No. 9639.6

Date of Preparation: 7/16/96

Revision: 4/10/15

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: C-TEC MO

Synonyms: Charring agent.

General Use: Fire retardant.

Manufacturer: Marshall Additive Technologies

Division of the R. J. Marshall Company

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Date Revised: 4/10/15

Preparer: Stephanie Nichols

Section 2 - Hazards Identification

Classification of the chemical in accordance with paragraph (d) of 1910.1200: This material is non-hazardous.

Signal word: None

Symbol: None

Hazard Statements: None

Precautionary Statements: None

Hazards not otherwise classified: None

HMIS

H 2

F 0

R 0

PPE[†] E

[†]Sec. 8

Section 3 - Composition / Information on Ingredients

Ingredient Name	CAS Number
Molybdenum Trioxide	1313-27-5

Section 4 - First Aid Measures

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

Inhalation: If overcome by high dust concentrations, remove to a ventilated area.

Eye Contact: Flush eyes thoroughly with water 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. Consult a physician if irritation persists.

Ingestion: Rinse mouth with water. Consult a physician.

Most important symptoms/effects, acute and delayed: None anticipated.

Indication of immediate medical attention and special treatment needed: None

Section 5 - Fire-Fighting Measures

Suitable Extinguishing Media: Water spray, carbon dioxide, alcohol-resistant foam, or other dry chemical.

Unsuitable Extinguishing Media: None known.

Specific hazards arising from the chemical:

Unusual Fire or Explosion Hazards: None known.

Hazardous Combustion Products: None known.

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face-piece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Use personal protective equipment. Avoid dust formation.

Methods and materials for containment and cleaning up: Collect solids. Recycle if possible. Keep in suitable, closed containers for disposal.

Section 7 - Handling and Storage

Precautions for safe handling: Avoid generating dust during handling.

Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place. Keep material dry.

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: Dust mask recommended.

Protective Clothing/Equipment: Wear protective gloves and glasses. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

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.

Ingredient	OSHA PEL		ACGIH TLV	
	TWA	STEL	TWA	STEL
Molybdenum trioxide	None established	None established	None established	None established

Section 9 - Physical and Chemical Properties

Appearance: light gray powder

Odor: odorless

Odor Threshold: not applicable

pH: not applicable

Freezing/Melting Point: 1463°F (795°C)

Boiling Point: 2102°F (1150°C)

Flash Point: not applicable

Flash Point Method: not applicable

Evaporation Rate: not applicable

Flammability: Non-flammable.

Upper/lower flammability or explosive limits: not explosive

Vapor pressure: not applicable

Vapor Density (Air=1): not applicable

Relative Density: 4.69

Water Solubility: negligible

Other Solubilities: soluble in concentrated mixture of nitric acid and hydrochloric acid or nitric and sulfuric acids

Partition coefficient n-octanol/water: not applicable

Auto-ignition Temperature: Not applicable

Decomposition Temperature: no data available

Viscosity: not applicable

Section 10 - Stability and Reactivity

Reactivity: No data available.

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

Possibility of hazardous reactions: Hazardous polymerization cannot occur.

Conditions to Avoid: None known.

Incompatible materials: Incompatible with strong mineral acids and strong oxidizing agents.

Hazardous Decomposition Products: no data available

Section 11- Toxicological Information

Information on the likely routes of exposure: Eyes, inhalation, ingestion

Symptoms related to the physical, chemical and toxicological characteristics:

Eye Effects: May cause irritation through mechanical abrasion.

Skin Effects: May cause irritation through mechanical abrasion.

Inhalation: Inhalation of high concentrations of this inert nuisance particulate can result in mild irritation of the respiratory tract.

Ingestion: Unlikely.

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

Numerical measures of toxicity:

Acute Toxicity:

Oral (rat) male: LD₅₀ = 2689 mg/kg

Oral (rat) female: LD₅₀ = 3830 mg/kg

Inhalation (rat) male and female: 4h > 5.05 mg/l

Dermal (rat) male and female: >2000 mg/kg

Skin corrosion/irritation:

Skin (rabbit): no skin irritation-4h

Serious eye damage/eye irritation:

Eyes (rabbit): no eye irritation

Respiratory or skin sensitization:

Maximization Test (guinea pig): does not cause skin sensitization

Germ Cell Mutagenicity:

Ames test (S. typhimurium): negative

Reproductive Toxicity: no data available

Specific target organ toxicity-single exposure: may cause respiratory irritation

Specific target organ toxicity-repeated exposure: no data available

Aspiration hazard: no data available

Carcinogenicity: Neither this product nor any of its components are listed as a carcinogen by OSHA, NTP, IARC, or ACGIH.

Section 12 - Ecological Information

Ecotoxicity:

Toxicity to fish: static test LC₅₀ – Pimephales promelas (fathead minnow) – 577 mg/l – 96 h

Toxicity to daphnia: static test LC₅₀ – Daphnia magna (Water flea) – 206.8 mg/l – 48 h

Toxicity to bacteria: Respiration inhibition EC₅₀ – sludge treatment – 820 mg/l – 3h

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data 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. Dispose of contaminated packaging same as unused product.

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 applicable

UN proper shipping name: not applicable

Transport hazard classes: not applicable

Packing group: not applicable

Environmental hazard: not applicable

Transport in bulk according to Annex II or MARPOL 73/78 and the IBC Code: not applicable

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): Listed
SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed
SARA 311/312 Hazards: Acute health hazard, Chronic health hazard

NFPA rating: H-2; F-0; R-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]). Please note that this product is not subject to any legal reporting requirements under these acts.

INTERNATIONAL REGULATIONS

Australia: Listed on AICS.
Canada: Listed on DSL
China: Listed on IECSC
Europe: Listed on EINECS # 215-204-7.
Japan: Listed on ENCS.
Korea: Listed on ECL. KE-97-3-75
New Zealand: Listed on NZIoC.
Taiwan: Listed on NECI.

Section 16 - Other Information

Prepared By: Stephanie Nichols

Revision Notes: converted to SDS

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

C-TEC MO

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