

Material Safety Data Sheet

MMT+ Octane Booster Fuel Treatment

MSDS No. 023

Date of Preparation: 10-29-99

Revision: 12-01-05

Product/Chemical Name: MMT+ Octane Booster Fuel Treatment
Part Number(s): 1516 (Blend MMT)
CAS Number: Not applicable to mixtures
General Use: Automotive product
Manufacturer: Berryman Products, Inc., 3800 E. Randol Mill Rd., Arlington, TX 76011-5434
Phone: 1-800-433-1704, Emergency phone number: 1-800-535-5053.

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt or % vol
Toluene	108-88-3	25-30
Methanol	67-56-1	25-30
Hydrocarbon Solvent	8008-20-6	20-30
Acetone	67-64-1	5-10
Octane Improver Concentrate	Mixture	5-10
Hexanes	110-54-3	<5

Trace Impurities:

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
Toluene	200	none estab.	50	none estab.	none estab.	none estab.	none estab.
Methanol	200	none estab.	200	250	none estab.	none estab.	none estab.
Hydrocarbon Solvent	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Acetone	1000	none estab.	500	750	none estab.	none estab.	none estab.
Octane Improver Concentrate	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.	none estab.
Hexanes	500	none estab.	500	1000	none estab.	none estab.	none estab.

Section 3 - Physical and Chemical Properties

Physical State: Liquid
Appearance and Odor: Clear, Reddish-Brown, Hydrocarbon
Vapor Pressure: 21 mm Hg at 68 °F (Major Component)
Vapor Density (Air=1): Heavier than air
Density: 6.90 lbs/gal
Specific Gravity (H₂O=1, at 4 °C): 0.828

Boiling Point: 122-617 °F
Refractive Index: 1.4190
% Volatile: 99
Evaporation Rate: Slower than ether

Section 4 - Fire-Fighting Measures

Flash Point: <40 °F
Flash Point Method: CC
LEL: 1.1% v/v (Major Component)
Flammability Classification: Class IB
Extinguishing Media: Carbon dioxide, alcohol-like foam, dry chemicals
Unusual Fire or Explosion Hazards: Extremely flammable liquid. Vapors can cause flash fire.
Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.
Fire-Fighting Equipment: Wear self-contained breathing apparatus pressure demand, MSNA/OSHA (approved or equivalent) and full protective gear. Use water spray to keep fire-exposed containers cool.



Section 5 - Stability and Reactivity

Stability: MMT+ Octane Booster Fuel Treatment is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities & Conditions to Avoid: Isolate from oxidizers, heat, sparks, electric equipment and open flame.

Hazardous Decomposition Products: Thermal oxidative decomposition of MMT+ Octane Booster Fuel Treatment can produce carbon dioxide, carbon monoxide and various hydrocarbons.

Section 6 - Health Hazard Information

Potential Health Effects

Primary Entry Routes: Skin, dermal, inhalation and ingestion.

Target Organs: Eyes, skin, respiratory system, CNS, liver and kidneys.

Acute Effects: May cause irritation to the eyes, skin, nose, throat and respiratory system. Nausea, headache, light-headedness, dizziness, weakness, restlessness, incoordination, drowsiness, vomiting, diarrhea, abdominal pain and dermatitis. May cause blindness if ingested. Harmful or fatal if swallowed.

Carcinogenicity: IARC, NTP, and OSHA do not list MMT+ Octane Booster Fuel Treatment as a carcinogen.

Chronic Effects: May affect central nervous system kidneys, liver and lungs. Can cause nervous system depression.

Emergency and First Aid Procedures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.

Eye Contact: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

Skin Contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

Ingestion: GET MEDICAL ATTENTION IMMEDIATELY. Do not induce vomiting.

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

Section 7 - Spill, Leak, and Disposal Procedures

Spill /Leak Procedures: Eliminate all sources of ignition. Stop spill at source. Wear appropriate personal protective equipment (Sec. 8). Contain the spill to facilitate cleanup with absorbent. Use non-sparking tools and equipment. Transfer to disposal containers.

Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state and local regulations.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 8 - Exposure Controls / Personal Protection

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.

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA.

Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, 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: 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 - Special Precautions and Comments

Handling Precautions: Avoid prolonged breathing of vapor and contact with eyes, skin and clothing. Use in well ventilated area. Wash thoroughly after handling.

Storage Requirements: Keep away from heat, sparks and flame. Keep container closed when not in use.

California Proposition 65: This product contains the following chemicals know to the state of California to cause cancer and/or reproductive toxicity: Toluene.

DOT Transportation Data (49 CFR 172.101):

Part Number(s): 1516

Shipping Name: Consumer
Commodity

Hazard Class: ORM-D

ID No.: N/A

Packing Group: N/A

SARA Title III Section 313 Supplier Notification:

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the emergency Planning & Community Right-To-Know-Act of 1986 & of 40CFR 372: Toluene, Methanol, Methylcyclopentadienyl Manganese Tricarbonyl (Octane Improver, CAS# 12108-13-3), and n-Hexane.

Prepared By: Alicia L. Reed

Disclaimer: All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling and disposal of the product. Users also assume all risks in regards to the publications of use of, or reliance upon information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.