

Material Safety Data Sheet

Octane Booster Fuel Treatment

November 17, 2009

SECTION - 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Berryman Products, Inc.
3800 E. Randol Mill Rd
Arlington, TX 76011-5434
800-433-1704

Part No.: 1512
www.berrymanproducts.com
EMERGENCY TELEPHONE NUMBER
INFOTRAC (800) 535-5053

SECTION - 2 COMPOSITION INFORMATION

COMPONENT	CAS #	% BY WEIGHT
Kerosene	8008-20-6	70 –90%
Petroleum Distillates	64742-94-5	8 –12%
Methylcyclopentadienyl Manganese Tricarbonyl (MMT)	12108-13-3	0.5 –1.2%
1,2,4-trimethylbenzene	95-63-6	0.1 –0.2%
Naphthalene	91-20-3	0.8 –1.2%

SECTION - 3 HAZARDS INFORMATION

EMERGENCY OVERVIEW

DANGER! Combustible Liquid and Vapor. Vapor May Cause Flash Fire. Harmful If Swallowed or Inhaled. Causes Irritation to Skin, Eyes and Respiratory Tract. Affects Central Nervous and Cardiovascular Systems. Do not allow material to contaminant water sources. Sara Title III Reporting.

ACUTE –Effects Of Single Overexposure

EYES Product contact with eyes can cause irritation. Vapor effects may cause eye irritation experienced as discomfort, redness or pain.

SKIN Product contact with skin can cause irritation, dryness and cracking may occur.

INHALATION Product is irritating to respiratory tract, can cause dizziness, drowsiness, depression, narcosis and headaches.

INGESTION Harmful If Swallowed. Swallowing this material may cause stomach or intestinal upset with pain, nausea, and/or diarrhea.

CHRONIC –Prolonged or Repeated Overexposure

EYES Product contact with eyes can cause irritation and eye pain. Prolonged or long term exposures may cause optic neuritis experienced as blurred or dimmed vision.

SKIN Product can be absorbed through skin and can affect Target Organs. Effects include central nervous system depression, and /or narcosis. Skin absorption may cause similar effects as from breathing or swallowing.

INHALATION Product is irritating to respiratory tract and can affect Target Organs. Can cause central nervous system depression and peripheral nervous system effects. Reports have associated repeated and prolonged occupational overexposure to solvents with irreversible brain and nervous system damage sometimes referred to as "Solvent or Painter's Syndrome". Breathing high concentrations of this material in an enclosed space or by intentional abuse can cause irregular heartbeats which can cause death.

INGESTION Harmful or Fatal If Swallowed. Can affect Target Organs. Liver, kidney, brain and nervous system damage can occur.

ASPIRATION Vomiting can cause serious inflammation and accumulation of fluids in the lungs. (Pneumonitis and pulmonary edema)

HAZARD TARGET ORGANS Aspiration into the lungs can produce severe lung damage and is a medical emergency. Kidneys, Liver, Eyes, Hearing, Lungs, Heart, Blood, Skin, Central and Peripheral Nervous System, Gastrointestinal and Cardiovascular Systems.

CARCINOGENIC –Product may contain trace amounts or greater than 0.1% of following.

CHEMICAL	CAS#	NTP	ACGIH	IARC	PERCENT
Naphthalene	91-20-3	No	(A4) Not classifiable for human	No	0.8 –1.2%

MUTAGENIC AND TERATOGENIC EFFECTS –May cause fetal and reproductive abnormalities.

CHEMICAL	CAS#	MUTAGENIC	TERATOGENIC	DEVELOPMENTAL	PERCENT
Naphthalene	91-20-3	No data available	No data available	Possible	0.8 –1.2%
Kerosene	8008-20-6	Mutagenic for bacteria and/or yeast.	No data available	No data available	

HAZARD RATINGS	Health	Flammability	Reactivity	Personal Protection
HMIS	2	2	0	G = Safety glasses, gloves, vapor respirator

SECTION - 4		FIRST AID MEASURES					
EYE CONTACT	Immediately flush eyes with cold water for at least 15 minutes while lifting upper and lower eyelids. Be sure to remove any contact lenses. Obtain immediate medical attention.						
SKIN CONTACT	Immediately flush skin with plenty of water for at least 15 minutes while removing any contaminated clothing or shoes. Cover the irritated skin with an emollient. Obtain medical attention if irritation persists. Wash any contaminated clothing and/or shoes before reuse.						
INHALATION	Remove person to fresh air, if they have problem breathing or any signs of overexposure, obtain immediate medical attention.						
INGESTION	DO NOT INDUCE VOMITING. If person is fully conscious give one to two glasses of water to dilute and obtain immediate medical attention.						
ASPIRATION HAZARD	If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician or hospital emergency room immediately.						
SECTION - 5		FIRE FIGHTING MEASURES					
COMPONENT (Kerosene)	FLASH POINT	METHOD		NFPA Class	FLAMMABILITY CLASSIFICATION		
FLAMMABLE LIMITS	37.8°C (100°F)	TAG Closed Cup		Class II	Combustible Liquid		
EXPLOSION HAZARDS	LOWER	UPPER		AUTO-IGNITION TEMPERATURE			
	0.7%	5%		210°C (410°F)			
Reactive with	Mechanical Impact			Static Discharge			
Extinguishing Media	Not Expected			Expected			
Fire Fighting Procedures	Acids and oxidizers, chlorine, nitrogen tetroxide, peroxides and oxygen.						
Protective Equipment	Use DRY chemicals, CO ₂ , alcohol foam. Water spray to cool or protect exposed materials.						
Hazardous Decomposition	May explode if ignited in an enclosed area. Flashback along vapor trail may occur.						
HAZARD RATINGS	Use MSHA/NIOSH approved self-contained breathing apparatus and full protective gear. (Full Bunker Gear)						
NFPA	Health	Flammability	Reactivity	Specific Hazard			
	2	2	0				
SECTION - 6		ACCIDENTAL RELEASE MEASURES					
SPILL OR LEAK	DANGER! COMBUSTIBLE LIQUID AND VAPOR. Warn personal to move away and eliminate ignition sources and ventilate area. Wear the appropriate safety equipment. Contain spill or stop the flow and absorb with an inert material and place in an appropriate waste disposal unit and dispose of in accordance with all State and Federal Guidelines and Regulations.						
SECTION - 7		HANDLING AND STORAGE					
HANDLING	DANGER! COMBUSTIBLE LIQUID AND VAPOR, Avoid flame, sparks static discharge and all electric devices. Avoid inhalation of vapors or contact with eyes or skin. Do not allow material to contaminant water sources. Open container slowly to relive pressure. Bond and ground all equipment when transferring form one vessel to another. Wash thoroughly after handling and do not wear any contaminated clothing or shoes.						
STORAGE	Keep container tightly closed when not in use and store in a cool, well-ventilated area away for direct sunlight or any ignition sources. Use proper signage. Store only in approved containers. Keep away from incompatible materials listed in Section 10. Storage should meet OSHA and NFPA standards for Class-II Combustible liquids.						
SECTION - 8		EXPOSURE CONTROLS / PERSONAL PROTECTION					
EXPOSURE LIMITS COMPONENT	ACGIH TWA8	ACGIH TWA8	OSHA PEL TWA8	OSHA PEL TWA8	ACGIH STEL	ACGIH STEL	Significant Exposure
Kerosene		200 mg/m ³					
Petroleum Distillates (MMT)	NE	0.2 mg/m ³	NE	0.2 mg/m ³	NE		Skin
1,2,4-trimethylbenzene	25 ppm		10 ppm	50 mg/m ³	25 ppm	125 mg/m ³	
Naphthalene	10 ppm				15 ppm	79 mg/m ³	

SECTION - 8		EXPOSURE CONTROLS / PERSONAL PROTECTION CONTINUED			
PERSONAL PROTECTION					
EYES	Safety goggles or face shield.	HANDS	Butyl or neoprene gloves.		
BODY	Not normally required.	FEET	Not normally required.		
RESPIRATORY	Wear MSHA/NIOSH approved respirator or equivalent.	OTHER	Eye bath and safety shower.		
VENTILATION	Ventilate to keep vapors of this material below the lowest ppm listed above. If over TLV, in accordance with 29 CFR 1910.134, use NIOSH approved positive-pressure self-contained breathing apparatus.				
HYGIENE	Wash after handling this product and before eating, smoking or using the bathroom.				
SECTION - 9		PHYSICAL AND CHEMICAL PROPERTIES			
PHYSICAL STATE	Liquid	pH	Not applicable		
APPEARANCE	Clear	SPECIFIC GRAVITY	0.818		
ODOR	Solvent	DENSITY	6.81 lb/gal		
SOLUBILITY	< 1%	FREEZE POINT	Not determined		
VOLATILES	100%	VAPOR PRESSURE	Not determined		
V.O.C.	100%	VAPOR DENSITY	Not determined		
SECTION - 10		STABILITY AND REACTIVITY			
CONDITIONS TO AVOID	Heat sources				
INCOMPATIBLE MATERIALS	Reactive and incompatible with concentrated oxygen, acids, bases, oxidizing agents, nitrogen tetroxide, and peroxides. These include liquid bleach, sodium or calcium hypochlorite, sulfuric acid, nitric acid, sodium or potassium hydroxide and hydrogen.				
THERMAL DECOMPOSITION	Burning or thermal decomposition can produce carbon monoxide and/or carbon dioxide and other toxic fumes.				
HAZARDOUS POLYMERIZATION	Will not occur.				
SECTION - 11		TOXICOLOGICAL INFORMATION			
COMPONENT		FORM	SUBJECT	RESULT VALUE	EXPOSURE TIME
Kerosene	LD50	Oral	Rabbit	2835 mg/kg	
Petroleum Distillates (MMT)	LD50	Oral	Rat	10 ml/kg	
	LD50	Oral	Rat	58 mg/kg	
	LD50	Skin	Rabbit	140 mg/kg	
1,2,4-trimethylbenzene	LC50	Inhaled	Rat	0.247 ppm	1 Hr
	LD50	Oral	Rat	5000 mg/kg	
Naphthalene	LC50	Inhaled	Rat	18000mg/m ³	4 Hr
	LD50	Oral	Rat	490 mg/kg	
	LD50	Skin	Rabbit	2,000 mg/kg	
	LC50	Inhaled	Rat	> 340 ppm	1 Hr
SECTION - 12		ECOLOGICAL INFORMATION			
COMPONENT			SUBJECT	RESULT VALUE	EXPOSURE TIME
Kerosene	LC50		Lepomis macrochirus (Bluegill)	2990 ppm	24 Hr
Petroleum Distillates (MMT)			No Data Available		
			No Data Available		
1,2,4-trimethylbenzene	LC50		Pimephales promelas (Flat Head Minnow)	77.2 mg/L	96 Hr
Naphthalene	LC50		Oncorhynchus mykiss (Trout)	305 ppm	96 Hr
	LC50		Lepomis macrochirus (Bluegill)	32.98 ppm	96 Hr
	LC50		Pimephales promelas (Flat Head Minnow)	4.9 mg/L	96 Hr

SECTION - 13 DISPOSAL CONSIDERATIONS

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER.
Dispose of any waste in accordance with all State and Federal Guidelines and Regulations.

ENVIRONMENTAL FATE

This material, as supplied, when discarded or disposed of, is a hazardous waste according to Federal Regulations (40 CFR 261) due to its ignitability and due to the composition containing some or all of its components. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the material is a hazardous waste.

The transportation, storage, treatment and disposal of RCRA waste material must be conducted in compliance with 40 CFR 262, 263, 264 and 270. Disposal can only occur in property permitted facilities. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate, or otherwise inappropriate.

SECTION - 14 TRANSPORT INFORMATION**D.O.T. CLASSIFICATION**

UN NUMBER	PROPER SHIPPING NAME	n.o.s.	HAZARD CLASS	
N/A	ORM-D Consumer Commodity	N/A	N/A	
PACKING GROUP	LABEL CODES	REPORTABLE QUANTITY	RESPONSE CODE	MARINE POLLUTANT
PGIII	Combustible liquid	100 LBS	128 (Kerosene)	No

SECTION - 15 REGULATORY INFORMATION

TSCA Chemical Name	CAS No.	Sec 8(b) Inventory	Sec 8(d) Health & Safety	Sec 4(a) Chemical Test Rules	Sec 12(b) Export Notification
Kerosene	8008-20-6	Yes	Yes		
Petroleum Distillates (MMT)	64742-94-5 12108-13-3	Yes Yes	Yes Yes		
1,2,4-trimethylbenzene	95-63-6	Yes	Yes		
Naphthalene	91-20-3	Yes	Yes	Yes	

HCS CLASSIFICATION

Combustible Liquid having a flash point at or above 100°F (37°C) and below 140°F (60°C)

REPORTABLE QUANTITIES Chemical Name	CAS No.	Extremely Hazardous		Reportable Quantity		Emission Reporting		RCRA Code	RMP TO Sec112r
		EPCRA TPO Sec. 302	EPCRA RQ Sec. 304	CERCLA RQ Sec. 103	TRI Sec. 313				
(MMT)	12108-13-3	100	100		Yes				
1,2,4-trimethylbenzene	95-63-6				Yes				
Naphthalene	91-20-3			100	Yes		U165		

SARA Chemical Name	CAS No.	Sec 311 Hazardous Chemical			Sec 311 & 312 Hazards			
		Yes	Acute	Chronic	Flammable	Pressure	Reactive	
Kerosene	8008-20-6	Yes	Yes	Yes	Yes			
Petroleum Distillates (MMT)	64742-94-5 12108-13-3	Yes Yes	Yes Yes	Yes Yes	Yes Yes			
1,2,4-trimethylbenzene	95-63-6	Yes	Yes	Yes	Yes			
Naphthalene	91-20-3	Yes	Yes	Yes	Yes			

RIGHT TO KNOW Chemical Name	CAS No.	State													
		CA	CT	FL	IL	LA	NJ	NY	PA	MI	MN	MA	RI	WI	
Kerosene	8008-20-6						Yes		Yes					Yes	
Petroleum Distillates	64742-94-5						Yes		Yes					Yes	
Naphthalene	91-20-3			Yes								Yes	Yes	Yes	

CALIFORNIA Proposition 65	CAS No.	WARNING! This product contains chemicals known to the state of California to cause:			
		Birth Defects	Reproductive Harm	Carcinogen	Developmental
Naphthalene	91-20-3			Yes	

Clean Air & Water Acts Chemical Name	CAS No.	Clean Air Acts			Clean Water Acts		
		HAP	Ozone Class 1	Ozone Class 2	HS	PP	TP
Naphthalene	91-20-3				Yes		

SECTION - 15		REGULATORY INFORMATION CONTINUED					
INTERNATIONAL REGULATIONS - The components of this product are listed on the chemical inventories of the following countries							
Chemical Name	CAS No.	Australia	Canada	Europe (EINECS)	Japan	Korea	UK
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	Yes	Yes
(MMT)	12108-13-3	Yes	Yes	Yes	Yes	Yes	Yes
DSCL (EEC)	Code	Definition (Risk-Phrases / Safety-Phrases)					
	R10	Flammable					
	R36/38	Irritating to eyes and skin.					
	R37/38	Irritation to respiratory system and skin.					
	R65	Harmful: may cause lung damage if swallowed.					
	S16	Keep away from sources of ignition. No Smoking.					
	S36/37	Wear suitable protective clothing and gloves					
	S61	Avoid release to the environment. Refer to special instructions/safety data sheet					
	S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label					
WHMIS Classification							
Chemical name	DSL	Class	Definition				
Kerosene	Yes	B3	Combustible liquid: Flash point between 37.8°C and 93.3°C (100°F – 20°F)				
(MMT)	Yes	D2B	Materials Causing Other Toxic Effects - Toxic Material				
1,2,4-trimethylbenzene	Yes	D2B	Materials Causing Other Toxic Effects - Toxic Material				
Naphthalene	Yes	D2B	Materials Causing Other Toxic Effects - Toxic Material				
SECTION - 16		OTHER INFORMATION					
SOURCE INFORMATION		CHEMICAL			CAS NO.	REVISION DATE	
Sciencelab	Kerosene				8008-20-6	10/09/2005	
Shell Chemical Company	Petroleum Distillates				64742-94-5	40/11/2002	
AFD Technologies	Methylcyclopentadienyl Manganese Tricarbonyl (MMT)				12108-13-3	10/15/2007	
AFD Technologies	1,2,4-trimethylbenzene				95-63-6	10/15/2007	
AFD Technologies	Naphthalene				91-20-3	10/15/2007	
MSDS Legend							
ACGIH	= American Conference of Governmental Industrial Hygienists	NFPA	= National Fire Protection Association				
CAS	= Chemical Abstracts Service Registry	n.o.s.	= Not Otherwise Specified				
CEILING	= Ceiling Limit (15 minutes)	NTP	= National Toxicology Program				
CERCLA	= The Comprehensive Environmental Response, Compensation, and Liability Act	OSHA	= Occupational Safety and Health Administration				
EPA	= Environmental Protection Agency	PEL	= Permissible Exposure Limit (OSHA)				
HAP	= Hazard Air Pollutant	PP	= Priority Pollutant				
HMIS	= Hazardous Materials Identification System	SARA	= Superfund Amendments and Reauthorization Act				
HS	= Hazardous Substance	STEL	= Short Term Exposure Limit (15 minutes)				
IARC	= International Agency for Research on Cancer	TLV	= Threshold Limit Value (ACGIH)				
LEL	= Lower Explosive Limit	TP	= Toxic Pollutant				
NE	= Not Established	TWA	= Time Weighted Average (8 hours)				
		UEL	= Upper Explosive Limit				
		WHMIS	= Worker Hazardous Materials Information System (Canada)				
DISCLAIMER							
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