



Mystik® Penetrating Oil

Material Safety Data Sheet

CITGO Petroleum Corporation
P.O. Box 3758
Tulsa, OK 74102-3758

MSDS No. 663614002
Revision Date 08/03/2000

Hazard Rankings		
	HMIS	NFPA
Health Hazard	* 1	1
Fire Hazard	1	1
Reactivity	0	0

* = Chronic Health Hazard

IMPORTANT: Read this MSDS before handling or disposing of this product and pass this information on to employees, customers and users of this product.

Emergency Overview			
Physical State	Liquid.		
Color	Green.	Odor	Wintergreen.

DANGER!
Contains Petroleum Distillates. Harmful or fatal if swallowed - Can enter lungs and cause damage.
If swallowed, DO NOT induce vomiting. Call a physician immediately.
Combustible Liquid!
Heated material can release vapor that can cause flash fire or ignite with explosive force.
Vapor or mists can cause mucous membrane and respiratory tract irritation.
Safety glasses are recommended when handling this material.
Avoid repeated or prolonged skin contact.
Do not store in open or unmarked containers.
Spills can cause slipping hazard.

Protective Equipment
Minimum Requirements See Section 8 for Details
 


SECTION 1: IDENTIFICATION

Trade Name	Mystik® Penetrating Oil	Technical Contact	(918) 495-5933
Product Number	663614002	Medical Emergency	(918) 495-4700
CAS Number	Mixture.	CHEMTREC Emergency	(800) 424-9300
Product Family	Specialty Oil		
Synonyms	Specialty Oil; Legacy Code No.: 7064X001; CITGO SAP Product Code No.: 663614002		

SECTION 2: COMPOSITION

Component Name(s)	CAS Registry No.	Concentration (%)
1) Distillates, petroleum, hydrotreated light naphthenic	64742-53-6	60 - 80
2) Petroleum Hydrocarbon Distillates	8052-41-3	20 - 40
3) Lard Oil	8016-28-2	0 - 5

SECTION 3: HAZARDS IDENTIFICATION

Also see Emergency Overview and Hazard Ratings on the top of Page 1 of this MSDS.

Major Route(s) of Entry Skin contact. Eye Contact.

Signs and Symptoms of Acute Exposure

Inhalation At elevated temperatures or in enclosed spaces, product mist or vapors may irritate the mucous membranes of the nose, the throat, bronchi, and lungs.

Mystik® Penetrating Oil

Eye Contact	Mild to moderate eye irritation can result from short-term contact with liquid, mist, or vapor.
Skin Contact	This material can cause mild skin irritation from prolonged or repeated skin contact. Injection under the skin, in muscle, or into the blood stream can cause irritation, inflammation, swelling, fever, and systemic effects and mild central nervous system depression. Injection of pressurized hydrocarbons can cause severe, permanent tissue damage. Initial symptoms may be minor. Injection of petroleum hydrocarbons requires immediate medical attention.
Ingestion	If swallowed, no significant adverse health effects are anticipated. Ingestion can cause a laxative effect. If aspirated into the lungs, liquid can cause severe lung damage or death.
Chronic Health Effects Summary	Prolonged and/or repeated skin contact may cause irritation and inflammation. Symptoms include defatting, redness, dryness, blistering eczema-like lesions, scaly dermatitis, and/or more serious skin disorders. Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction.
Conditions Aggravated by Exposure	Personnel with pre-existing skin disorders, central nervous system (CNS) disease, chronic respiratory diseases, or impaired pulmonary, kidney, and/or liver function should avoid exposure.
Target Organs	Skin.
Carcinogenic Potential	This product does not contain any components at concentrations above 0.1% which are considered carcinogenic by OSHA, IARC, or NTP.

OSHA Hazard Classification is indicated by an "X" in the box adjacent to the hazard title. If no "X" is present, the product does not exhibit the hazard as defined in the OSHA Hazard Communication Standard (29 CFR 1910.1200).							
OSHA Health Hazard Classification				OSHA Physical Hazard Classification			
Irritant	<input type="checkbox"/>	Toxic	<input type="checkbox"/>	Combustible	<input checked="" type="checkbox"/>	Explosive	<input type="checkbox"/>
Sensitizer	<input type="checkbox"/>	Highly Toxic	<input type="checkbox"/>	Flammable	<input type="checkbox"/>	Oxidizer	<input type="checkbox"/>
Corrosive	<input type="checkbox"/>	Carcinogenic	<input type="checkbox"/>	Compressed Gas	<input type="checkbox"/>	Organic Peroxide	<input type="checkbox"/>
						Pyrophoric	<input type="checkbox"/>
						Water-reactive	<input type="checkbox"/>
						Unstable	<input type="checkbox"/>

SECTION 4: FIRST AID MEASURES

Take proper precautions to ensure your own health and safety before attempting rescue or providing first aid. For more specific information, refer to Exposure Controls and Personal Protection in Section 8 of this MSDS.

Inhalation	Move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately. Keep the affected individual warm and at rest.
Eye Contact	Check for and remove contact lenses. Flush eyes with cool, clean, low-pressure water while occasionally lifting and lowering eyelids. Seek medical attention if excessive tearing, redness, or pain persists.
Skin Contact	Remove contaminated shoes and clothing. Wipe off excess material. Wash exposed skin with soap and water. Seek medical attention if tissue appears damaged or if irritation persists. Thoroughly clean contaminated clothing before reuse. Discard contaminated leather goods. If material is injected under the skin, into muscle, or into the bloodstream, seek medical attention immediately.
Ingestion	Do not induce vomiting unless directed to by a physician. Do not give anything to drink unless directed to by a physician. Never give anything by mouth to a person who is not fully conscious. If large amounts are swallowed or irritation or discomfort occurs, seek medical attention immediately.
Notes to Physician	This material presents a significant aspiration hazard. Aspiration may produce chemical pneumonitis. Induction of emesis is not recommended because of the potential for aspiration. Treatment may involve careful gastric lavage if performed soon after ingestion or in patients who are comatose or at risk of convulsing. Protect airway by placement in Trendelenburg and left lateral decubitus position or by cuffed endotracheal intubation. Subcutaneous or intramuscular injection requires prompt surgical debridement.

Mystik® Penetrating Oil

SECTION 5: FIRE FIGHTING MEASURES

NFPA Flammability Classification	OSHA/NFPA Class-IIIA combustible liquid. Moderately combustible.		
Flash Point Method	CLOSED CUP: 77°C (171°F). (Pensky-Martens [ASTM D-93])		
Lower Flammable Limit	AP 0.6 %	Upper Flammable Limit	AP 7 %
Autoignition Temperature	Not available.		
Hazardous Combustion Products	Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and trace oxides of sulfur and/or nitrogen.		
Special Properties	This material will release vapors when heated above the flash point temperature that can ignite when exposed to a source of ignition. In enclosed spaces, vapors can ignite with explosive force. Mists or sprays may burn at temperatures below the flash point.		
Extinguishing Media	SMALL FIRE: Use dry chemicals, carbon dioxide, foam, water fog, or inert gas (nitrogen). LARGE FIRE: Use foam, water fog, or water spray. Water fog and spray are effective in cooling containers and adjacent structures. However, water can cause frothing and/or may not extinguish the fire. Water can be used to cool the external walls of vessels to prevent excessive pressure, autoignition or explosion. DO NOT use a solid stream of water directly on the fire as the water may spread the fire to a larger area.		
Fire Fighting Protective Clothing	Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Withdraw immediately from the area if there is a rising sound from a venting safety device or discoloration of vessels, tanks, or pipelines.		

SECTION 6: ACCIDENTAL RELEASE MEASURES

Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. For more specific information, refer to the Emergency Overview on Page 1, Exposure Controls and Personal Protection in Section 8 and Disposal Considerations in Section 13 of this MSDS.

Do not touch damaged containers or spilled material unless wearing appropriate protective equipment. Slipping hazard; do not walk through spilled material. Stop leak if you can do so without risk. For small spills, absorb or cover with dry earth, sand, or other inert non-combustible absorbent material and place into waste containers for later disposal. Contain large spills to maximize product recovery or disposal. Prevent entry into waterways or sewers. In urban area, cleanup spill as soon as possible. In natural environments, seek cleanup advice from specialists to minimize physical habitat damage. This material will float on water. Absorbent pads and similar materials can be used. Comply with all laws and regulations.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid water contamination and extreme temperatures to minimize product degradation. Empty containers may contain product residues that can ignite with explosive force. Do not pressurize, cut, weld, braze solder, drill, grind or expose containers to flames, sparks, heat or other potential ignition sources. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.
Storage	Keep container closed. Do not store with strong oxidizing agents. Do not store at temperatures above 120° F or in direct sunlight for extended periods of time. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers or waste residues of this product.

Mystik® Penetrating Oil

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls Good general ventilation should be sufficient to control airborne contaminant levels. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended occupational exposure limits (see below). Ensure that an emergency eye wash station and safety shower are located near the work-station.

Personal Protective Equipment Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations. The following pictograms represent the minimum requirements for personal protective equipment. For certain operations, additional PPE may be required.



Eye Protection Safety glasses equipped with side shields should be adequate protection under most conditions of use. Wear goggles and/or face shield if splashing or spraying is anticipated. Wear goggles and face shield if material is heated above 125°F (51°C). Have suitable eye wash water available.

Hand Protection Avoid skin contact. Use gloves (e.g., disposable PVC, neoprene, nitrile, vinyl, or PVC/NBR). Wash hands with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities, or leaving work. DO NOT use gasoline, kerosene, solvents, or harsh abrasive skin cleaners.

Body Protection Use clean and impervious protective clothing (e.g., neoprene or Tyvek®) if splashing or spraying conditions are present. Protective clothing may include long-sleeve outer garment, apron, or lab coat. If significant contact occurs, remove oil-contaminated clothing as soon as possible and promptly shower. Launder contaminated before reuse or discard. Wear heat protective boots and protective clothing when handling material at elevated temperatures.

Respiratory Protection For known or anticipated vapor or mist concentrations above the occupational exposure guidelines (see below), use a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter if adequate protection is provided. For unknown vapor concentrations or concentrations exceeding respirator protection factors, use a positive-pressure, pressure-demand, self-contained breathing apparatus (SCBA). Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).

General Comments Use good personal hygiene practices. Wash hands and other exposed skin areas with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities, or leaving work. DO NOT use gasoline, kerosene, solvents or harsh abrasives as skin cleaners. Since specific exposure standards/control limits have not been established for this product, the "Oil Mist, Mineral" exposure limits shown below are suggested as minimum control guidelines.

Occupational Exposure Guidelines

Substance	Applicable Workplace Exposure Levels
1) Distillates, petroleum, hydrotreated light naphthenic	TWA: 5 STEL: 10 (mg/M ³) from ACGIH (TLV) TWA: 5 (mg/M ³) from OSHA (PEL) TWA: 5 STEL: 10 (mg/M ³)
2) Petroleum Hydrocarbon Distillates	TWA: 100 (ppm) from ACGIH (TLV) [1998] TWA: 500 (ppm) from OSHA (PEL) [1989]

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid.	Color	Green.	Odor	Wintergreen.
Specific Gravity	0.86 (Water = 1)	pH	Not Applicable.	Vapor Density	>1 (Air = 1)
Boiling Point/Range	Not available.	Melting/Freezing Point			Not available.
Vapor Pressure	<1 mm of Hg (@ 20°C)	Viscosity (cSt @ 40°C)			Not available.
Solubility in Water	Insoluble in cold water.	Volatile Characteristics			AP 277 g/l VOC's W/V.
Additional Properties	API Gravity (ASTM D287) = 32.6 @ 60° F Density = 7.19 Lbs/gal.				

Mystik® Penetrating Oil

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability	Stable.	Hazardous Polymerization	Not expected to occur.
Conditions to Avoid	Keep away from extreme heat, sparks, open flame, and strongly oxidizing conditions.		
Materials Incompatibility	Strong oxidizers.		
Hazardous Decomposition Products	No additional hazardous decomposition products were identified other than the combustion products identified in Section 5 of this MSDS.		

SECTION 11: TOXICOLOGICAL INFORMATION

For other health-related information, refer to the Emergency Overview on Page 1 and the Hazards Identification in Section 3 of this MSDS.

Toxicity Data	Distillates, petroleum, hydrotreated light naphthenic:	
	ORAL (LD50):	Acute: >5000 mg/kg [Rat].
	DERMAL (LD50):	Acute: >2000 mg/kg [Rabbit].
	INHALATION (LC50):	Acute: 9.6 mg/L 8 hours [Rat]. 10.5 mg/L 8 hours [Rat, Male].
	Petroleum Hydrocarbon Distillates:	
	DERMAL (LD50):	Acute: >3000 mg/kg [Rabbit].
	INHALATION (LC50):	Acute: >5.5 mg/L 8 hours [Rat].
	Distillates, petroleum, hydrotreated light naphthenic:	
	INHALATION (LC50) Acute:	9.6 mg/L (Female Rat).
	INHALATION (LC50) Acute:	10.5 mg/L (Male Rat).

ORAL (LD50) Acute:	GT 5,000 mg/kg (Rat screen level).
DERMAL (LD50) Acute:	GT 2,000 mg/kg (Rabbit screen level).
DRAIZE EYE Acute:	Non-irritating (Rabbit).
DRAIZE DERMAL Acute:	Mild skin irritant (Rabbit).
BUEHLER DERMAL Acute:	Non-sensitizing (Guinea Pig).
28-Day DERMAL Sub-Chronic:	Mild to moderate skin irritant (Rabbit & Rat).

A life-time dermal application of severely hydrotreated light naphthenic oils produced skin masses on mice which correlated with the skin irritation response levels of the test animals. Additional studies attribute these masses to a weak promotional activity. These studies indicate that light naphthenic oils are not mutagenic, tumor initiators nor complete chemical carcinogens. These materials have not been determined to be carcinogenic by IARC, NTP or OSHA.

Petroleum Hydrocarbon Distillates:

Studies on laboratory animals have associated similar materials with mild to moderate eye and respiratory tract irritation. Studies on laboratory animals have shown this material to cause skin irritation after repeated or prolonged contact. Human volunteers exposed to an airborne concentration of 400 ppm experienced no ill effects. Saturated vapors in air (or AP 8,200 mg/m³) are below the LC50 level in rats. Based upon laboratory animal studies, repeated direct application of Stoddard Solvent to the skin can produce defatting dermatitis, kidney damage, and changes in blood-forming capacity. Rats developed kidney damage and elevated blood urea nitrogen levels when exposed to a concentration of 1.9 mg/L for 65 days. The kidney damage in rats appeared to involve both the tubules and glomeruli, and occurred only in males. Male rats exposed to airborne concentrations of 100, 150, and 1,500 ppm for 6 hours per day, 5 days per week for 90 days did not develop any functional or histological signs of neurotoxicity. This material was determined not to be mutagenic in the Salmonella/microsome (Ames) assay, the in-vivo mouse bone marrow cell chromosome aberrations assay, or the in-vitro rat sister chromatid exchanges assay.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	Analysis for ecological effects has not been conducted on this product. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum and petroleum products can be harmful or fatal to aquatic life and waterfowl.
--------------------	--

Mystik® Penetrating Oil

Environmental Fate

An environmental fate analysis has not been conducted on this specific product. However, plants and animals may experience harmful or fatal effects when coated with petroleum-based products. Petroleum-based (mineral) lube oils will normally float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway might be enough to cause a fish kill or create an anaerobic environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.

Conditions of use may cause this material to become a hazardous waste, as defined by Federal or State regulations. It is the responsibility of the user to determine if the material is a hazardous waste at the time of disposal. Transportation, treatment, storage and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulations may be more restrictive. Contact the RCRA/Superfund Hotline at (800) 424-9346 or your regional US EPA office for guidance concerning case specific disposal issues.

SECTION 14: TRANSPORT INFORMATION

DOT Status	A U.S. Department of Transportation regulated material.		
Proper Shipping Name	Combustible liquid, n.o.s. (contains Petroleum Distillates) [This product has a flash point temperature between 60.5° to 93°C (141° and 200°F). For bulk shipments, it is classified as a US DOT "Combustible Liquid." According to 49 CFR 173.150 (f)(2), certain transportation-related requirements, such as labeling, may not apply to this product when shipped in non-bulk packaging (e.g., less than 119 gallons capacity). However, pursuant to 49 CFR 173.150 (b) limited-quantities offered for or transported via aircraft may be subject to US DOT regulation.]		
Hazard Class	COMBUSTIBLE LIQUID [with a flash point GT 60.5° C (GT 141° F)].	Packing Group(s)	III
		UN/NA ID	NA 1993
Reportable Quantity	A Reportable Quantity (RQ) has not been established for any components of this material.		
Placards		Emergency Response Guide No.	128
	A Combustible placard may not be required for this material when transported in a non-bulk container with a maximum capacity LT 450 L (LT 119 Gal.)	HAZMAT STCC No.	4915378
		MARPOL III Status	Not a DOT "Marine Pollutant" per 49 CFR 171.8.

SECTION 15: REGULATORY INFORMATION

TSCA Inventory	This product and/or its components are listed on the Toxic Substance Control Act (TSCA) inventory.
SARA 302/304	The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.
SARA 311/312	The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: Fire, Acute (Immediate) Health Hazard, Chronic (Delayed) Health Hazard
SARA 313	This product contains the following components in concentrations above de minimis levels that are listed as toxic chemicals in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA: No components were identified.

Mystik® Penetrating Oil

CERCLA	The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances present in this product or refinery stream that may be subject to this statute are: Antimony and Antimony Compounds, Concentration: <0.1%
CWA	This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.
California Proposition 65	This product is not known to contain the any components for which the State of California has found to cause cancer, birth defects or other reproductive harm.
New Jersey Right-to-Know Label	For New Jersey R-T-K labeling requirements, refer to components listed in Section 2.
Additional Regulatory Remarks	Federal Hazardous Substances Act, related statutes, and Consumer Product Safety Commission regulations, as defined by 16 CFR 1500.14(b)(3) and 1500.83(a)(13): This product contains "Petroleum Distillates" which may require special labeling if distributed in a manner intended or packaged in a form suitable for use in the household or by children. Precautionary label dialogue should display the following: DANGER: Contains Petroleum Distillates! Harmful or fatal if swallowed! Call Physician Immediately. KEEP OUT OF REACH OF CHILDREN!

SECTION 16: OTHER INFORMATION

Refer to the top of Page 1 for the HMIS and NFPA Hazard Ratings for this product.

REVISION INFORMATION

Version Number	2.0
Revision Date	08/03/2000
Print Date	Printed on 08/03/2000.

ABBREVIATIONS

AP = Approximately Established	EQ = Equal	> = Greater Than	< = Less Than	NA = Not Applicable	ND = No Data	NE = Not
ACGIH = American Conference of Governmental Industrial Hygienists				AIHA = American Industrial Hygiene Association		
IARC = International Agency for Research on Cancer				NTP = National Toxicology Program		
NIOSH = National Institute of Occupational Safety and Health				OSHA = Occupational Safety and Health Administration		
NPCA = National Paint and Coating Manufacturers Association				HMIS = Hazardous Materials Information System		
NFPA = National Fire Protection Association				EPA = Environmental Protection Agency		

DISCLAIMER OF LIABILITY

THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESSED OR IMPLIED REGARDING ITS CORRECTNESS. SOME INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE SUBSTANCE ITSELF. THIS MSDS WAS PREPARED AND IS TO BE USED ONLY FOR THIS PRODUCT. IF THE PRODUCT IS USED AS A COMPONENT IN ANOTHER PRODUCT, THIS MSDS INFORMATION MAY NOT BE APPLICABLE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION OR PRODUCTS FOR THEIR PARTICULAR PURPOSE.

THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE, AND DISPOSAL OF THE PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.

***** END OF MSDS *****