

PRODUCT: MINERAL SPIRITS

SECTION III - PHYSICAL AND CHEMICAL CHARACTERISTICS

DESCRIPTION: A colorless liquid with a characteristic petroleum hydrocarbon odor.

MELTING POINT: NA	SOLUBILITY (WATER) Negligible
BOILING POINT/RANGE: 305-405°	SPECIFIC GRAVITY: 0.80 - 0.81
VAPOR PRESSURE 0.2 @ 100° F	API GRAVITY: 43-46
% VOLATILE BY VOLUME: 100%	VISCOSITY: 1 cSt @ 100° F
VAPOR DENSITY: Heavier than air	POUR POINT: NA
EVAPORATION RATE: Slower than BuAc	

SECTION IV - FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT (METHOD) 108° F/TCC	AUTOIGNITION TEMP: 500° F
EXPOSURE LIMITS (% BY VOLUME/AIR): LOWER: 1%	UPPER: 7%

FLAMMABILITY CLASS (OSHA): II

FIRE/EXPLOSION HAZARDS: This material is a moderate fire and explosion hazard and may be ignited by an ignition source above its flash point. Vapors may travel to ignition source and flash back. Containers may explode in fire. Vapor explosion hazard indoors, outdoors or in sewers. Empty Containers retain material residue and may generate vapors which may ignite and explode.

COMBUSTION PRODUCTS: Carbon dioxide, carbon monoxide and water vapor.

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam and water spray.

FIRE FIGHTING PROCEDURES: Wear protective equipment and clothing when fighting fires, including a self-contained breathing apparatus for fires in enclosed spaces. Use water spray to cool fire-exposed containers, to dilute and disperse vapors, protect personnel, and to flush unignited spills from fire.

SECTION V - CHEMICAL REACTIVITY INFORMATION

STABILITY: Stable under normal conditions of storage and handling.

REACTIVITY: Reacts vigorously with strong acids and oxidizing agents.

INCOMPATIBILITY: Incompatible with strong acids and oxidizing agents.

HAZARDOUS REACTION/DECOMPOSITION PRODUCTS: Burning produces carbon dioxide and carbon monoxide. May release acrid smoke and irritating fumes.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: Hazardous polymerization has not been reported to occur under normal temperatures and pressures.

MATERIAL SAFETY DATA SHEET

DATE ISSUED: 02/19/98
SUPERSEDES DATE: 08/01/96

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EMERGENCY PHONE NUMBERS:

MANUFACTURER: KERN OIL & REFINING CO.
7724 EAST PANAMA LANE
BAKERSFIELD, CA 93307

POISON CONTROL CENTER: 800/346-5922
CHEMTREC: 800/424-9300
KERN OIL: 805/845-0761

SECTION I - MATERIAL IDENTIFICATION

TRADE NAME: Mineral Spirits PRODUCT CODE NO.: KOP033

GENERIC NAME: Mineral Spirits

CHEMICAL NAME: Mixture of petroleum hydrocarbons CAS No.: 64742-48-9

SYNONYMS: Petroleum spirits, paint thinner, stoddard solvent RTECS No.: None

CHEMICAL FAMILY: Aliphatic and aromatic hydrocarbons

CERCLA RATINGS: (Scale 0-3) HEALTH = 2 FIRE = 2 REACTIVITY = 0 PERSISTENCE = 0

NFPA RATINGS: (Scale 0-4) HEALTH = 1 FIRE = 2 REACTIVITY = 0

SECTION II - COMPONENTS AND CONTAMINANTS

PERCENT	COMPONENT	CAS #	RECOMMENDED EXPOSURE LIMITS			AGENCY*
			8 HR TWA	STEL	CEILING	
100%	Heavy Hydrotreated Petroleum Naphtha	64742-48-9	100ppm		1800mg/M ³	A, O
			350mg/M ³			N

*A=ACGIH; O=OSHA; N=NIOSH

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SECTION VI - HEALTH HAZARD AND FIRST AID INFORMATION

HEALTH HAZARDS:

GENERAL: This material is an aspiration hazard and defats the skin. Breathing vapors at high concentrations may cause central nervous system depression.

OCULAR/EYE: This material may cause eye irritation. Contact with the liquid may cause burning, tearing, and redness.

DERMAL/SKIN: This material may cause skin irritation. Prolonged or repeated contact may cause burning, redness, drying and cracking of the skin, and dermatitis.

INHALATION/BREATHING: Exposure to mists or to excessive vapor concentrations may cause irritation of the nose, throat, and respiratory tract; defats the skin; and signs of central nervous system depression; i.e., headache, nausea, drowsiness and dizziness.

INGESTION/SWALLOWING: Accidentally swallowing this material can cause irritation of the stomach and digestive tract. Larger ingestions may cause signs of central nervous system depression; i.e., headache, nausea, drowsiness and dizziness. This material is an aspiration hazard and may enter the lungs when swallowing or vomiting and cause serious lung damage.

CHRONIC/OTHER: No known chronic effects.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: pre-existing skin disorders. Chronic pulmonary disease.

FIRST AID:

OCULAR/EYE CONTACT: Flush the affected eye(s) with water. If irritation develops, seek medical assistance.

DERMAL/SKIN CONTACT: Remove contaminated clothing and flush contact areas with water and then thoroughly cleanse contact area by washing with soap and water. If irritation or redness develop and persist, seek medical assistance.

INHALATION/BREATHING: IF VICTIM IS NOT BREATHING OR IF BREATHING DIFFICULTIES DEVELOP ARTIFICIAL RESPIRATION OR OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL.

If symptoms persist, seek medical assistance.

INGESTION/SWALLOWING: DO NOT INDUCE VOMITING/ASPIRATION HAZARD. If victim is conscious and alert, give milk or water to drink. Seek immediate medical assistance.

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SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

SHIPPING INFORMATION:

D.O.T. SHIPPING NAME: Petroleum distillate

D.O.T. ID NUMBER: 3, UN 1268, III

D.O.T. HAZARD CLASSIFICATION: Combustible liquid.

SHIPPING REGULATIONS: No label required. See DOT regulations 49CFR 173 for packaging requirements.

STORAGE: Store in closed containers in a cool well-ventilated area away from all heat and ignition and strong oxidizing agents. Containers should be electrically bonded and grounded when transferring materials.

HANDLING: Use in a well-ventilated area and wear recommended protective equipment and clothing. Use explosion-proof tools and equipment. Avoid eye contact, breathing vapors or mists and prolonged or repeated skin contact. Label all unattended containers.

MISUSE OF EMPTY CONTAINERS CAN BE HAZARDOUS. COMPLETELY DRAIN AND HAVE COMMERCIALY CLEANED BEFORE ANY REUSE. KEEP CONTAINERS CLOSED. DO NOT USE TO MIX OR STORE ANY OTHER MATERIALS BEFORE THEY HAVE BEEN COMMERCIALY CLEANED. DO NOT CUT, WELD, DRILL OR SUBJECT CONTAINERS TO HEAT OR FLAMES. VAPORS MAY IGNITE AND EXPLODE.

SPECIAL PRECAUTIONS AND COMMENTS; Enclosed or head spaces in material tanks, pipes or containers may contain hazardous concentrations of fumes or vapors. Exercise caution and wear recommended protective equipment and clothing when opening valves or tank and maintenance or sampling where there is a potential for exposure to these fumes or vapors.

SPILL OR LEAK PROCEDURES: Evacuate area around large spills. Remove all ignition sources and provide explosion-proof ventilation. Wear recommended protective clothing and equipment. Do not allow spills to enter sewers, streams or surface waters. Dike and contain spills. Use inert absorbent to reduce fumes and to pick up spill. Collect for later disposal.

DISPOSAL PROCEDURES: DISPOSE OR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. This material is classified by the EPA as a hazardous waste under RCRA, No. D001 Ignitable Waste. Empty containers should be commercially cleaned and reconditioned for reuse.

SECTION VIII - PERSONAL PROTECTION AND ENGINEERING CONTROLS

EYE AND FACIAL PROTECTION: Chemical goggles are recommended to prevent eye contact.

SKIN PROTECTION: Protective gloves and clothing are recommended when prolonged contact with the concentrated material may occur.

RESPIRATORY PROTECTION: In situations where vapor concentrations exceed the recommended exposure limits, a NIOSH approved organic vapor cartridge or air-supplying respirator should be worn.

VENTILATION: Explosion-proof general mechanical ventilation and local exhaust are recommended to maintain vapor concentrations below the recommended exposure limits.

OTHER: An eye wash and a source of running water should be available to flush or wash the eyes and skin.