

1. PRODUCT NAME: Mineral Spirits 66/3
2. CHEMICAL NAME: Light hydrotreated distillate (petroleum)
3. SYNONYMS: Petroleum hydrocarbon solvent
4. CAS NUMBER: 64742-47-8

IN CASE OF  
TRANSPORT EMERGENCY  
CONTACT CHEMTREC  
USA: 1-800-424-9300  
INTERNATIONAL: 1-703-527-3887

5. COMPOSITION: This product may be composed, in whole or in part, of any of the following refinery streams: Light hydrotreated distillate (petroleum) [CAS No: 64742-47-8]  
C9-C15 Cycloalkanes - 60% - 100%  
C9-C15 Alkanes - 15% - 40%

6. PROPERTIES: PHYSICAL STATE: Liquid.  
COLOR: Transparent, colorless.  
ODOR: Characteristic hydrocarbon solvent odor.  
SPECIFIC GRAVITY: 0.78 (Water = 1)  
PH: Not Applicable.  
VAPOR DENSITY: 5 (air = 1)  
BOILING RANGE: 159 to 197 c (318 to 386 F)  
MELTING/FREEZING POINT: Not available  
VAPOR PRESSURE: <0.1 kPa (<1 mmHg) (at 20 c)  
VOLATILITY: 778g/l VOC (w/v)  
SOLUBILITY IN WATER: Very slightly soluble in cold water. (<0.1% w/w)  
VISCOSITY (cSt@40 c): not available  
FLASH POINT: Closed cup: 42 c (108 F). (Tagliabue.)  
ADDITIONAL PROPERTIES: Conductivity = <5 picosiemens/meter (unadditized)  
CHEMICAL STABILITY: Stable  
HAZARDOUS POLYMERIZATION: Not expected to occur.  
CONDITIONS TO AVOID: Keep away from heat, flame and other potential ignition sources. Keep away from strong oxidizing conditions and agents.  
MATERIALS INCOMPATIBILITY: Strong acids, alkalies, and oxidizers such as liquid chlorine and oxygen.

7. HAZARDS: MAJOR ROUTES OF ENTRY: Skin contact. Inhalation.  
SIGNS AND SYMPTOMS OF ACUTE EXPOSURE:  
INHALATION: Breathing high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Breathing this material may cause central nervous system depression with symptoms including nausea, headache, dizziness, fatigue, drowsiness, or unconsciousness. Breathing high concentrations of this material, for example, in an enclosed space or by intentional abuse, can cause irregular heartbeats which can cause death.  
EYE CONTACT: This product can cause transient mild eye irritation with short-term contact with liquid sprays or mists. Symptoms include stinging, watering, redness, and swelling.  
SKIN CONTACT: This product can cause mild, transient skin irritation with short-term exposure. The severity of irritation will depend on the amount of material that is applied to the skin and the speed and thoroughness that it is removed. Symptoms include redness, itching, and burning of the skin. Repeated or prolonged skin contact can produce moderate irritation (dermatitis).  
INGESTION: If swallowed, this material may irritate the mucous membranes of the mouth, throat, and esophagus. It can be readily absorbed by the stomach and intestinal tract. Symptoms include a burning



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sensation of the mouth and esophagus, nausea, vomiting, dizziness, staggered gait, drowsiness, loss of consciousness and delirium, as well as additional central nervous system (CNS) effects. Due to its light viscosity, there is a danger of aspiration into the lungs during vomiting. Aspiration can result in severe lung damage or death.

**CHRONIC HEALTH EFFECTS SUMMARY:** Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction.

Reports have associated repeated and prolonged occupational overexposure to solvents with irreversible brain and nervous system damage (some times referred to as "solvent or Painter's Syndrome"). Intentional misuse by deliberately concentrating and inhaling this product may be or fatal.

**CONDITIONS AGGRAVATED BY EXPOSURE:** Disorders of the following organs or organ systems that may be aggravated by significant exposure to this material or its components include: Skin, Respiratory System, Liver, Kidneys, Peripheral Nervous System, Central Nervous System (CNS)

**TARGET ORGANS:** May cause damage to the following organs: kidneys, lungs, the nervous system, liver, mucous membranes, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea

**CARCINOGENIC POTENTIAL:** This product is not known to certain any components at concentrations above 0.1% which are considered carcinogenic by OSHA, IARC or NTP.

OSHA Health Hazard Classification: Irritant

OSHA Physical Hazard Classification: Combustible

**HAZARD RATINGS:**

Health Hazard: HMIS - \*1, NFPA - 1

Fire Hazard: HMIS - 2, NFPA - 2

Reactivity: HMIS - 0, NFPA - 0

\*= Chronic Health Hazard

**EMERGENCY OVERVIEW**

**PHYSICAL STATE:** Liquid

**COLOR:** Transparent, colorless.

**ODOR:** Characteristic hydrocarbon solvent odor.

**CAUTION:**

Combustible Liquid and Vapor. Harmful or fatal if swallowed – can enter lungs and cause damage. Can cause eye, skin or respiratory tract irritation. Harmful to aquatic organisms.

8. FIRE FIGHTING **NFPA FLAMMABILITY CLASSIFICATION:** NFPA Class-II combustible liquid.

**INFORMATION:** **FLASH POINT:** Closed cup: 42 c (108 F). (Tagliabue.)

**LOWER FLAMMABLE LIMIT:** AP 0.6%

**UPPER FLAMMABLE LIMIT:** AP 6%

**AUTOIGNITION TEMPERATURE:** AP 230 c (AP 446 F)

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon dioxide, carbon monoxide, smoke, fumes, and/or unburned hydrocarbons.

**SPECIAL PROPERTIES:** Combustible Liquid! This material releases vapors heated above ambient temperatures. Vapors can cause a flash fire. Vapors can travel to a source of ignition and flashback. A vapor and air mixture can create an explosion hazard in confined spaces such as sewers. Use only with adequate ventilation. If containers is not properly cooled, it can rupture in the heat of fire a fire.

**EXTINGUISHING MEDIA:** **SMALL FIRE:** Use dry chemicals, carbon dioxide, foam, water fog, or inert gas (nitrogen). Carbon dioxide and inert gas can displace oxygen. Use caution when applying carbon dioxide or inert gas in confined spaces. **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.

**PROTECTION OF FIRE FIGHTERS:** Fire fighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion



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or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles. Cover pooling liquid with foam. Containers can build pressure if exposed to radiant heat; cool adjacent containers with flooding quantities of water until well after the fire is out. Withdraw immediately from the area if there is a rising sound from a venting safety device or discoloration of vessels, tanks, or pipelines. Be aware that burning liquid will float on water. Notify appropriate authorities of potential fire and explosion hazard if Liquid enter sewers or waterways.

**9. PERSONAL PROTECTION MEASURES:** **ENGINEERING CONTROLS:** Provide ventilation on other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated below. All electrical equipment should comply with the National Electric Code. An emergency eye wash station and safety shower should be 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 : goggles with side shields, jacket, respirator, gloves.

**EYE PROTECTION:** Safety glasses equipment with side shields are recommended as minimum protection in industrial settings. Chemical goggles should be worn during transfer operations or when there is a likelihood of misting, splashing, or spraying of this material. A suitable emergency eye wash water and safety shower should be located near the work station.

**HAND PROTECTION:** Avoid skin contact. Use heavy duty gloves constructed of chemical resistant materials such as Viton® or heavy nitrile rubber. 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 abrasives as skin cleaners.

**BODY PROTECTION:** Avoid skin contact. Wear long-sleeved fire-retardant (e.g., Normex®) while working with flammable and combustible liquids. Additional chemical-resistant protective gear may be required if splashing or spraying conditions exist. This may include an apron, boots and additional facial protection. If product comes in contact with clothing, immediately remove soaked clothing and shower. Promptly remove and discarded contaminated leather goods.

**RESPIRATORY:** For known vapor concentration above the occupational exposure guidelines (see below), use a NIOSH-approved organic vapor respirator if adequate protection is provided. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134). For airborne vapor concentrations that exceed the recommended protection factors for organic vapor respirators, use a full-face, positive-pressure, supplied air respirator. Due to fire and explosion hazards, do not enter atmospheres containing concentrations greater than 10% of the lower flammable limit of this product.

**GENERAL COMMENTS:** Warning! Use of this material in spaces without adequate ventilation may result in generation of hazardous levels of combustion products and/or inadequate oxygen levels for breathing. Odor is an inadequate warning for Hazardous conditions.

### OCCUPATIONAL EXPOSURE GUIDELINES:

Petroleum Hydrocarbon Distillates: ACGIH TLV (United States). – TWA: 100ppm 8 hours.

OSHA PEL Z2 (United States). – TWA: 500ppm 8 hours.

Nonane, all isomers: ACGIH (United States). – TWA: 200ppm 8hours.

**10. FIRST AID PROCEDURES:** **INHALATION:** Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately.

**EYE CONTACT:** Flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. If easily accomplished, check for and



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remove contact lenses. If contact lenses cannot be removed, seek immediate medical attention. Do not use eye ointment. Seek medical attention.

**SKIN CONTACT:** Remove contaminated shoes and clothing. Flush affected area with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. Do not use ointments. If skin surface is not damaged, clean affected area thoroughly with mild soap and water. Seek medical attention if tissue appears damaged or if pain or irritation persists.

**INGESTION:** Do not induce vomiting. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to a person who is not fully conscious. Do not leave victim unattended.

### NOTES TO PHYSICIAN:

**INHALATION:** Inhalation overexposure can produce toxic effects. Monitor for respiratory distress. If cough or difficulty in breathing develops, evaluate for upper respiratory tract inflammation, bronchitis, and pneumonitis. Administer supplemental oxygen with assisted ventilation, as required.

This material (or a component) sensitizes the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate, cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

**INGESTION:** If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

11. **EXPOSURE LIMITS:** Petroleum Hydrocarbon Distillates: ACGIH TLV (United States). – TWA: 100ppm 8 hours.  
OSHA PEL Z2 (United States). – TWA: 500ppm 8 hours.  
Nonane, all isomers: ACGIH (United States). – TWA: 200ppm 8hours.

12. **TOXICOLOGICAL INFORMATION:** Light Hydrotreated distillate (petroleum): Studies on laboratory animals have shown similar materials to cause eye and respiratory tract irritation. Studies of similar materials on laboratory animals have resulted in skin irritation after repeated or prolonged contact. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and rash (dermatitis).

13. **ECOLOGICAL INFORMATION:** **ECOTOXICITY:** This mixture contains components that are potentially toxic to freshwater and saltwater ecosystems.  
**ENVIRONMENTAL FATE:** This product will normally float on water. Components will evaporate rapidly. This material may be harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment. The octanol-water partition coefficient (log Kow) for this product is expected to be in the range of 2.1 to 5.

14. **DISPOSAL CONSIDERATIONS:** Maximize material recovery for reuse or recycling. Recovered non-usable material may be regulated by US EPA as a hazardous waste due to its ignitibility (D001) characteristics. 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 RCRA "hazardous waste" at the time 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 your regional US EPA office for guidance concerning case specific disposal issues.

15. **CARCINOGENIC PROPERTIES & NOTIFICATIONS:** **CALIFORNIA PROPOSITION 65:** This product is not known to contain 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.  
**CARCINOGENIC POTENTIAL:** This product is not known to contain any components at concentrations above 0.1% which are considered carcinogenic by OSHA, IARC or NTP.

16. TRANSPORT INFORMATION: The shipping description below may not represent requirements for all modes of transportation, shipping methods or locations outside of the United States.

US DOT STATUS: A U.S. Department of Transportation (DOT) regulated material.

PROPER SHIPPING NAME: Petroleum Distillates, n.o.s. (Naphtha Solvent), 3, UN1268 PG III

HAZARD CLASS: 3

PACKING GROUP(S): III

UN/NA NUMBER: UN 1268

REPORTABLE QUANTITY: A Reportable Quantity (RQ) has not been established for this material.

PLACARDS: Flammable Liquid – 3

EMERGENCY RESPONSE GUIDE No.: 128

MARPOL III STATUS: Not a DOT “Marine Pollutant” per 49 CFR 171.8.

17. HANDLING & STORAGE: HANDLING: A spill or leak can cause an immediate fire or explosion hazard. Keep containers closed and do not handle or store near heat, sparks, or any other potential ignition sources. Do not contact with oxidizable materials. Do not breathe vapor. Use only with adequate ventilation and personal protection. Never siphon by mouth. Avoid contact with eyes, skin, and clothing. Prevent contact with food and tobacco products. Do not take internally.

When performing repairs and maintenance on contaminated equipment, keep unnecessary persons away from the area. Eliminate all potential ignition sources. Drain and purge equipment, as necessary, to remove material residues. Follow proper entry procedures, including compliance with 29CFR 1910.146 prior to entering confined spaces such as tanks or pits. Use gloves constructed of impervious material and protective clothing if direct contact is anticipated. Provide ventilation to maintain exposure potential below applicable exposure limits. Use appropriate respiratory protection when concentrations exceed any established occupational exposure level. Promptly remove contaminated clothing. Wash exposed skin thoroughly with soap and water after handling.

A static electrical charge can accumulate when this material is flowing through piped, nozzles or filters and when it is agitated. A static spark discharge can ignite accumulated vapors particularly during dry weather conditions. Always bond receiving containers to the fill pipe before and during loading. Always keep nozzle in contact with the container throughout the loading process. Do not dill any portable container in or on a vehicle. Do NOT use compressed air for filling, discharging or other handling operations. Product container is not designed for elevated pressure. Do not pressurize, cut, weld, braze solder, drill, or grind on containers. Do not expose product containers to flames, sparks, heat or other potential ignition sources. Empty containers may contain product residues that can ignite with explosive force. Observe label precautions. 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. Store in a cool, dry, well-ventilated area. Do not store with oxidizing agents. Do not store at elevated temperatures 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.

18. ACCIDENTAL RELEASE MEASURES: Flammable Liquid! Release causes an immediate fire or explosion hazard. Evacuate all non-essential personnel from immediate area and establish a “regulated zone” with site control and security. A vapor-suppressing foam may be used to reduce vapors. Eliminate all ignition sources. All equipment used when handling this material must be grounded. Stop the leak if it can be done without risk. Do not touch or walk through spilled material. Remove spillage immediately from hard, smooth walking areas. Prevent its entry into waterways, sewers, basements, or confined areas. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to appropriate waste containers. Use clean, non-sparking tools to collect absorbed material.

For large spills, secure the area and control access. Dike far ahead of a liquid spill to ensure complete collection. Water mist or spray may be used to reduce or disperse vapors; but, it may not prevent ignition



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in closed spaces. This material will float on water and its run-off may create an explosion or fire hazard. Verify that responders are properly HAZWOPER-trained and wearing appropriate respiratory equipment and fire-resistant protective clothing during cleanup operations. In an urban area, cleanup spill as soon as possible; in natural environments, cleanup on advice from specialists. Pick up free liquid for recycle and/or disposal if it can be accomplished safely with explosion-proof equipment. Collect any excess material with absorbent pads, sand, or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal. Comply with all applicable local, state and federal laws and regulations.

19. REGULATORY INFORMATION: TSCA INVENTORY: This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.
- SARA 302/304 EMERGENCY PLANNING AND NOTIFICATION: 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 HAZARD IDENTIFICATION: 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 TOXIC CHEMICAL NOTIFICATION AND RELEASE REPORTING: 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.
- 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 substance" 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. This product or refinery stream is not known to contain chemical substances subject to this statute. However, it is recommended that you contact state and local authorities to determine if there are any other reporting requirements in the event of spill.
- CLEAN WATER ACT (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.
- 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!