

**MATERIAL SAFETY DATA SHEET**

TOTAL Specialties USA, Inc.. 5 N. Stiles Street, Linden NJ 07036  
Phone 1-908-862-9300



Product PENETRATING OIL 1  
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REVISION DATE

**IDENTIFICATION AND EMERGENCY INFORMATION**

PRODUCT NAME: PENETRATING OIL 1	PRODUCT #:
CHEMICAL NAME: Mixture	CAS #'S: Mixture
PRODUCT APPEARANCE AND ODOR: Amber liquid, petroleum odor	CHEMICAL FAMILY: Petroleum hydrocarbon
SYNONYMS: General purpose penetrating oil	EMERGENCY TELEPHONE: 1-800-442-5823 or 1-908-862-9300

**COMPONENTS AND HAZARD INFORMATION**

COMPONENTS:	W/W HAZARD DATA (TLV, LD50, LC50, ETC.):
Aliphatic solvent naphtha CAS# 64742-47-8, CAS# 8052-41-3	100 ppm ACTIH TWA
Petroleum-based lube oil CAS# 64742-52-5	5 mg/m3 TWA (OSHA, ACGIH) (as an oil mist)
1,2,4-Trimethylbenzene CAS# 95-63-6	25 ppm ACTIH TWA
Oleic acid, CAS# 112-80-1	N/E

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS):

Health	Flammability	Reactivity
1	2	0

**TRANSPORTATION INFORMATION**

TRANSPORTATION/SHIPPING INFORMATION:  
Department of Transportation (DOT):  
Proper shipping name: Flammable liquid, NOS Aliphatic Hydrocarbon, Class 3, UN1993, PG III  
NOTE: per 49 CFR 173.150 (f)(1) a flammable liquid with a flashpoint at or above 100 F that does not meet the definition of any other hazard class may be reclassified as a combustible liquid (except for transport by vessel or aircraft, unless other means of transportation is impractical)  
DOT Hazard Class: Combustible liquid NA 1993 PG III  
DOT Identification number: NA 1993 Name: NA 1993

**EMERGENCY FIRST AID**

EYE CONTACT:  
If splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

## SKIN CONTACT:

In case of skin contact, remove contaminated clothing and wash skin thoroughly with soap and water.

## INHALATION:

Vapor pressure is very low. Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor from hot product, immediately remove from exposure and call a physician. If breathing is irregular or has stopped, start resuscitation; administer oxygen if available. If overexposure to oil mist, remove from further exposure until excessive oil mist condition subsides.

## INGESTION:

If ingested, do not induce vomiting. Call a physician immediately.

## FIRE AND EXPLOSION HAZARD INFORMATION

## FLASH POINT (MINIMUM):

40°C (104°F) Test method: Tag Closed Cup

## AUTOIGNITION TEMPERATURE:

254 C (490 F)

## NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION:

Health	Flammability	Reactivity
1	2	0

## FLAMMABLE OR EXPLOSIVE LIMITS (approximate percent by volume in air):

Estimated values: lower: 0.7% upper: 6.0%

## EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES:

Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.

The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials", Eighth Edition (1984):

Use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to keep fire-exposed containers cool. Water froth may be used to flush spills away from exposure. Minimize breathing gases, vapor, fumes, or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

## UNUSUAL FIRE AND EXPLOSION HAZARDS:

n/a

## "EMPTY" CONTAINER WARNING:

Empty containers retain residue (liquid or vapor) and can be dangerous. DO NOT PRESSURIZE, WELD, CUT BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged, and returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with government regulations. For work on tanks refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

## HEALTH AND HAZARD INFORMATION

## EXPOSURE LIMIT FOR TOTAL PRODUCT: Mild toxicity.

Exposure limit for solvent 8 hour workday is

TWA 100 ppm (435 mg/M<sup>3</sup>) ACGIH and OSHA

150 ppm (655 mg/M<sup>3</sup>) STEL

## VARIABILITY AMONG INDIVIDUALS:

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which vary from person to person. As a precaution, exposure to liquids, vapors, mists, or fumes should be minimized.

## EFFECTS OF OVEREXPOSURE (Signs and symptoms of exposure):

Prolonged or repeated skin contact with this product tends to remove skin oils possibly leading to irritation and dermatitis.

Product contacting the eye may cause irritation.

Product has a low order of oral and dermal toxicity.

Possible aspiration hazard.

Induced vomiting may cause aspiration of product into the lungs.

(See Emergency First Aid Section).

## PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

BOILING RANGE:  
305-396 F (152-202 C)

VAPOR PRESSURE:  
<10 mm Hg @ 25°C/77°F

SPECIFIC GRAVITY (25°C/25°C):  
(WATER = 1)  
0.79

VAPOR DENSITY (AIR = 1):  
5

MOLECULAR WEIGHT:  
NE

PERCENT VOLATILE BY VOLUME:  
90% @ atm at 25C/77 F

EVAPORATION RATE @ 1 ATM. AND 25°C  
0.1 (N butyl acetate =1)

SOLUBILITY IN WATER @ 1 ATM. and 25°C  
(77°F): insoluble

POUR, CONGEALING OR MELTING POINT:  
<-18 C

FREEZING POINT:  
n/e

VISCOSITY at 25C 0.95

## REACTIVITY

This product is stable and will NOT react violently with water. Hazardous olymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite, etc., as this represents a serious explosion hazard.

## DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS:

Fumes, smoke, carbon monoxide, oxides of sulfur, and other decomposition products, in case of incomplete combustion.

## CONDITIONS TO AVOID:

Open flames, sparks, heat, pilot lights and static electricity.

## TOXICITY

ORAL (Acute)	N/E
DERMAL (Acute)	N/E
EYE	N/E
INHALATION (Acute)	N/E
CHRONIC, SUBCHRONIC, ETC.	N/E

Medical Conditions Aggravated by Exposure: Unknown

This product does NOT contain any ingredients identified as carcinogenic by IARC, NTP, or OSHA.

SARA Section 313 Status: The following chemicals are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and reauthorization act of 1986 and 40 CFR Part 372:

Trimethylbenzene CAS 95-63-64

2 wt % max

**SARA SECTION 311 - HAZARD CATEGORIES:**

This product may meet one or more of the criteria for the hazard categories defined in 40 CFR Part 370 as established by Sections 311 and 312 of SARA as indicated below:

YES	<b>IMMEDIATE (ACUTE) HEALTH HAZARD</b>	NO	<b>SUDDEN RELEASE OF PRESSURE HAZARD</b>
NO	<b>DELAYED (CHRONIC) HEALTH HAZARD</b>	NO	<b>REACTIVE HAZARD</b>
YES	<b>FIRE HAZARD</b>		

**CERCLA HAZARDOUS SUBSTANCES:**

As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance.

**U.S. TSCA INVENTORY**

All components of this material are listed on the U.S. TSCA Inventory.

**CALIFORNIA PROPOSITION 65**

This product contains the following components for which the State of California has found to cause cancer, birth defects or other reproductive harm: benzene

**NEW JERSEY RIGHT-TO-KNOW LABEL**

Petroleum distillate

**ADDITIONAL REGULATORY REMARKS**

Volatile Organic compounds: This product is NOT exempt from VOC reporting.

**SPILL OR LEAK PROCEDURES****STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

Keep product out of sewers and watercourses by diking or impounding. Absorb with sand or inert material. Sweep or scoop up and remove. Prevent spread of spill. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with local regulations.

**WASTE DISPOSAL METHOD:** (Consult federal, state, or local authorities for proper disposal procedures.)

Assure conformity with applicable disposal regulations. Dispose of absorbed material at an approved waste site or facility.

**PROTECTION AND PRECAUTIONS**

**VENTILATION:** (Always maintain below permissible exposure limits.)

Use local exhaust to capture vapor, mist or fumes, if necessary. Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air.

**RESPIRATORY PROTECTION:** (Use only NIOSH approved equipment.)

Normally not needed at ambient temperatures. Use supplied air respiratory protection in confined or enclosed spaces, if needed. Use filter, dust, fume, or mist respirator type under misting conditions. Use can or cartridge; gas or vapor respirator type under conditions exceeding TWA standard.

**PROTECTIVE GLOVES:**

Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

**EYE PROTECTION:**

Use splash goggles or face shield when eye contact may occur.

**OTHER PROTECTIVE EQUIPMENT:**

Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact.

**WORK PRACTICES/ENGINEERING CONTROLS:**

Keep containers closed when not in use. Do not handle near heat, sparks, flame or strong oxidants.

**PERSONAL HYGIENE:**

Minimize breathing vapor, mist, or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before reuse. Remove contaminated shoes and thoroughly clean before reuse; discard if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

**OTHER REGULATORY INFORMATION**

**OSH HAZARD DETERMINATION:** This material is not known to be hazardous as defined by OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Inventory:** All of the components of this material are listed on the Toxic Chemical Substances Inventory. This product is in compliance with the Toxic Substances control Act (TSCA).

**SARA SECTION 311 - HAZARD CATEGORIES:**

This product may meet one or more of the criteria for the hazard categories defined in 40 CFR Part 370 as established by Sections 311 and 312 of SARA as indicated below:

YES	<b>IMMEDIATE (ACUTE) HEALTH HAZARD</b>	NO	<b>SUDDEN RELEASE OF PRESSURE HAZARD</b>
NO	<b>DELAYED (CHRONIC) HEALTH HAZARD</b>	NO	<b>REACTIVE HAZARD</b>
YES	<b>FIRE HAZARD</b>		

**SARA 302/304:** There are no components in this product on the SARA 302/304 list.

**SARA SECTION 313 - TOXIC COMPONENTS:** This product does not contain >1.0% (greater than 0.1% for carcinogenic substance) of any chemical substances listed under SARA Section 313.

**CLEAN WATER ACT (CWA):**

Under the CWA, discharges of fluids to surface water without proper Federal and State permits must be reported immediately to the National Response Center at (800) 424-8802.

**CERCLA HAZARDOUS SUBSTANCES:**

As defined by CERCLA, the term "hazardous substance" does not include any ingredients or fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance.

**CALIFORNIA PROPOSITION 65**

This product contains no ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute.

**NEW JERSEY RIGHT-TO-KNOW LABEL**

Solvent

**WHMIS CLASSIFICATION**

This product is a WHMIS controlled substance.

PREPARED BY: Alan Denniston

Technical Services

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