



Material Safety Data Sheet

Section 1: Product and Company Identification

Product Name:	Trane Oil 45	Distributed By:	The Trane Company
Part Number:	OIL00045		3600 Pammel Creek Road
Trane MSDS #:	6132		La Crosse, WI 54601
Prepared By:	RJL/REM	Phone Number:	608.787.2000
Date Prepared:	4/03/00	For MSDS Information:	608.787.3307
Supersedes:	N/A	CHEMTREC:	800.424.9300

Section 2: Product Information

<u>Ingredient</u>	<u>CASRN</u>	<u>% (wt.)</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>ACGIH STEL</u>
Refined Petroleum Oil	64742-52-5	98.5	5 mg/m ³	5 mg/m ³	10 mg/m ³
Butylated Triphenyl Phosphate*	N/A	1.5	N/D	N/D	N/D

*Butylated Triphenyl Phosphate consists of:
 t-Butyl phenyl diphenyl phosphate (CASRN – 56803-37-3)
 Bis(t-Butyl phenyl)phenyl phosphate (CASRN – 65652-41-7)
 Tri(t-butyl phenyl)phosphate (CASRN – 78-33-1)
 Triphenyl phosphate (CASRN – 115-86-6)

Section 3: Hazards Identification

Color:	Amber	Toxicity:	Non toxic as defined by OSHA
Physical Form:	Viscous liquid	Fire Hazard:	Combustible
Distinctive Odor:	Mild petroleum	Reactivity:	Stable
Under Pressure:	N/A		

Route of Entry: Inhalation, ingestion and skin absorption.

Inhalation Hazard: Slightly irritating if oil mist is inhaled.

Single Exposure: Poses no significant risk unless overexposed to mist.

Special Medical Treatment: None, see Section 4: First Aid Measures.

Potential Health Effects:

Eye: A mild mechanical irritant which will cause eye watering and inflammation of the conjunctivas (inflammation of the lining of the eye). Mist contact may irritate causing discomfort, tearing or blurred vision.

Skin: Prolonged exposure may cause skin irritation. A single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts.

Inhalation: Inhalation of vapors or mists may cause irritation of the mucous membranes and upper respiratory tract. Exposure to excessive mists may cause nasal passage irritation and sneezing.

Ingestion: Ingestion of excessive quantities may cause irritation of the digestive tract resulting in discomfort, nausea, vomiting and diarrhea.

Carcinogen: Material is not listed as a carcinogen by OSHA, NTP or IARC.

Signs & Symptoms: Prolonged skin contact with this product may cause physical irritation resulting in redness and/or cracking of the skin. Eye exposure may lead to redness, excessive blinking and tearing. Respiratory contact, via mist, may result in nasal discomfort causing a runny nose, irritation of the septum, difficult breathing, coughing and chest pains.

Section 4: First Aid Measures

Eye Contact: If irritation or redness from exposure to vapor develops or persists, consult a physician. In case of direct contact, flush eyes with clean water for at least 15 minutes and seek medical attention.

Skin Contact: Remove contaminated clothing. Wash affected area thoroughly with soap and water. Seek medical attention if irritation or redness develops and persists.

Inhalation of Material: Remove affected person from the source of exposure and into fresh air. If breathing difficulties develop, oxygen should be administered by qualified personnel. If breathing has stopped, give artificial respiration. Seek immediate medical attention.

Ingestion of Material: Do not induce vomiting. Aspiration of liquid into the lungs can cause chemical lung irritation (pneumonitis) and swelling (pulmonary edema)/hemorrhage which can be fatal. Seek immediate medical attention.

Other Information: Consumption of food and beverage should be avoided in work areas where hydrocarbons are present. Always wash hands and face with soap and water before eating, drinking or smoking.

Note to Physicians: Treatment of overexposure by inhalation should be directed at the control of symptoms and the clinical condition of the patient. Aspiration of the material may cause lung injury. This product contains 0.4% triphenyl phosphate which has been reported to cause cholinesterase inhibition in humans.

Section 5: Fire Fighting Measures

Flammable Properties:

Flash Point:	>150°C (300°F) estimated	Lower Explosive Limit:	N/D
Flash Point Method:	ASTM D-92	Upper Explosive Limit:	N/D

Hazardous Products of Combustion: Carbon Monoxide and Carbon Dioxide.

Potential for Dust Explosion: N/A.

Contributes Unusual Hazards: No.

Potential for Release of Flammable Vapors: If material is heated above its flash point it will release flammable vapors. These vapors can burn in the open or be explosive in confined spaces if an ignition source is present. Mists or sprays may be flammable below oil's normal flash point. Keep away from extreme heat or open flame.

Extinguishing Media: Use foam, Carbon Dioxide or dry chemical. Water may not be effective to extinguish fire. Use water spray to cool fire exposed containers and to protect personnel.

Fire Fighting Instructions: Do not direct a solid stream of water or foam into hot burning pools; this may cause frothing and increase fire intensity. Use self-contained breathing apparatus and protective clothing.

Section 6: Accidental Release Measures

Containment Technique: Contain spills immediately with inert materials (e.g. sand, earth). Avoid discharge to natural waters. Shut off ignition sources. Contain spill and keep from entering waterways or sewers.

Clean-up Technique: Transfer liquids and solid diking material to suitable containers for recovery or disposal. This product will cause a slip and fall hazard. Caution should be employed to reduce risk of environmental contamination.

Evacuation Procedures: Isolate the hazard area. Deny entry to unnecessary and unprotected personnel in consideration of potential hazards that may develop, such as fire.

Special Instructions:

NFPA Hazard Rating:	Health	- 1	HMIS Hazard Rating:	Health	- 1
	Fire	- 1		Flammability	- 1
	Reactivity	- 0		Reactivity	- 0
	Special	- None		PPE	- *

(4 – Extreme; 3 – High; 2 – Moderate; 1 – Slight; 0 – Insignificant).

* - PPE rating should be determined by the end user considering handling techniques and actual use conditions.

Section 7: Handling and Storage

Handling: Avoid contact with skin, eyes or clothing. Do not breath in the material. Wash hands thoroughly after handling. Keep away from flames, sparks or hot surfaces. Never use a torch to cut or weld on or near container.

Storage: Keep product cool, dry and away from sources of ignition. Empty oil containers can contain explosive vapors. NFPA Class IIIB Storage.

Section 8: Exposure Controls / Personal Protection

Engineering Controls: No specific controls are needed for single, short duration exposures. For prolonged or repeated exposures, use personal protective devices for skin, eye and respiratory protection. Local exhaust ventilation may be required in order to minimize exposure if the material is aerosolized or heated to generate vapors.

Personal Protective Equipment:

Eye/Face Protection: Not required under conditions of normal use. Chemical splash goggles or safety glasses, in compliance with ANSI #Z87.1-1989, are advised if the potential for splashing exists.

Skin Protection: The use of oil resistant gloves is advised to prevent skin contact, possible irritation and absorption. Wash hands with soap and water.

Respiratory Protection: Use a NIOSH approved respirator with dual vapor/mist and particulate cartridge if vapor concentration exceeds PEL or TLV. Do not use compressed oxygen in hydrocarbon rich atmospheres.

Section 9: Physical and Chemical Properties

Color:	Amber	Distinctive Odor:	Mild petroleum
Physical Form:	Viscous liquid	Shape:	N/A
pH:	Non-corrosive.	Evaporation Rate (Butyl Acetate=1):	0 at 25°C/77°F
Vapor Density (Air=1):	>10 (heavier than air)	Boiling Point:	>260°C/500°F
Freezing / Melting Point:	N/D	Specific Gravity / Density:	<0.93 at 15°C/60°F
Solubility in Water:	Negligible at 25°C/77°F	Percent Volatile (wt.):	0 at 25°C/77°F

Section 10: Stability and Reactivity

Stability: Stable under normal conditions.

Conditions to Avoid: Keep product away from heat, sparks, pilot lights, static electricity and open flames.

Incompatibility: The product is incompatible with strong oxidizers such as hydrogen peroxide, bromine and chromic acid.

Section 11: Toxicological Information

Background Data: No data is available to indicate acute toxicological properties are a problem when used under normal conditions. Chronic effects of overexposure may cause skin and eye irritation with prolonged or repeated contact. Not listed as carcinogenic or a potential carcinogen by OSHA, NTP or IARC.

Section 12: Ecological Information

Ecotoxicological Information:

Liquid petroleum products are considered as inherently waste like under USEPA regulation 40 CFR Part 260 and must be handled as a regulated waste to prevent environmental exposure.

Notify appropriate authorities of any release to the environment (spill). Contain spill immediately. Do not allow spill to enter sewers or waterways.

Section 13: Disposal Considerations

Recommendations: Disposal must comply with Federal, State and Local Regulations. If material is spilled or discarded, it maybe a regulated waste and must be properly handled to prevent environmental exposure.

Section 14: Transport Information

USDOT Information: Substance is not USDOT regulated. Its Freight Classification is 65 Petroleum Oil n.o.i.b.n.

Section 15: Regulatory Information

TSCA: The chemical components of this product are contained on the Section 8 (B) Chemical Substance Inventory List (40 CFR 710).

SARA Title III Information: This product does not contain substance(s) which are defined as toxic chemical(s) under and subject to the reporting requirements of Section 302, 304, 311 or 313 of Title III of SARA (40 CFR Part 372).

<u>Chemical Name/Category</u>	<u>Section 313</u>		<u>Section 302</u>		<u>Section 311/312</u>
	<u>CASRN</u>	<u>% (wt.)</u>	<u>TPQ</u>	<u>RQ</u>	<u>Hazard Class</u>
N/A	N/A	N/A	N/A	N/A	None

Section 16: Other Information

Never use pressure to empty drum, it is not a pressure vessel. When empty, the drum may have vapor or product residue. Residual vapors may explode or ignite. Do not puncture, drill, grind or weld on or near container.

Acronyms/Definitions:

ACGIH:	American Conference of Governmental Industrial Hygienists.
ANSI:	American National Standards Institute.
ASTM:	American Society for Testing and Materials.
CASRN:	Chemical Abstract Service Registration Number is a number assigned to identify a material.
CFR:	Code of Federal Regulations.
GRAS:	Generally Recognized As Safe (per the Food, Drug and Cosmetic Act).
HMIS:	Hazardous Materials Identification System (National Paint & Coatings Association).
IARC:	International Agency for Research on Cancer.
mg/m³:	Milligrams per cubic meter.
N/A:	Not Applicable.
N/D:	Not Determined.
n.o.i.b.n.:	Not otherwise indexed by name.
NIOSH:	National Institute for Occupational Safety and Health.
NFPA:	National Fire Protection Association.
NTP:	National Toxicology Program.
OSHA:	Occupational Safety and Health Administration.
PEL:	Permissible Exposure Limit.
PPE:	Personal Protective Equipment.
RQ:	Reportable Quantity.
SARA:	Superfund Amendments and Reauthorization Act of 1986. <u>Section 302:</u> Substances and Facilities Covered and Notification. <u>Section 304:</u> Emergency Notification. <u>Section 311:</u> Material Safety Data Sheets. <u>Section 312:</u> Emergency Hazardous Chemical Inventory Forms. <u>Section 313:</u> Toxic Chemical Release Forms.
STEL:	Short-Term Exposure Limit.
Title III:	Emergency Planning and Community Right to Know Act.
TLV:	Threshold Limit Value.
TPQ:	Threshold Planning Quantity.
TSCA:	Toxic Substances Control Act.
USDOT:	United States Department of Transportation.
USEPA:	United States Environmental Protection Agency.