

MATERIAL SAFETY DATA SHEET FOR DIESTER FLUSHING OIL

TOTAL Lubricants USA Southwest  
400 Chisholm Place, Suite 418  
Plano, Texas 75075

TOTAL Lubricants USA, Inc.  
5 N. Stiles Street  
Linden NJ 07036

REVISION DATE  
N/A

DATE ISSUED  
1-June-2009

IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME: DIESTER FLUSHING OIL      PRODUCT #: 1-17101  
 CHEMICAL NAME: Di-Isodecyl Phthalate      CAS #'S: 68515-49-1  
 PRODUCT APPEARANCE AND ODOR: Colorless liquid, petroleum odor      CHEMICAL FAMILY: Diester  
 SYNONYMS: Synthetic diester oil      EMERGENCY TELEPHONE: 1-800-442-5823 or 1-908-862-9300

COMPONENTS AND HAZARD INFORMATION

Ingredient	CAS # %	by Weight	TLV	PEL
Benzenedicarboxylic Acid	68515-49-1	100	5 mg/m <sup>3</sup> (oil mist)	5 mg/m <sup>3</sup> (oil mist)
DIC9-11 Branched Alkylesters				

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS):  
 Health      Flammability      Reactivity  
 0                      1                      0

TRANSPORTATION INFORMATION

TRANSPORTATION/SHIPPING INFORMATION:  
 Department of Transportation (DOT): Not regulated

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

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FLASH POINT (MINIMUM):  
202°C (395°F) Test method: COC

AUTOIGNITION TEMPERATURE:  
N/E

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION:  
Health            Flammability        Reactivity  
0                    1                    0

FLAMMABLE OR EXPLOSIVE LIMITS (approximate percent by volume in air):  
Estimated values: lower: N/E            upper: N/E

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.

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HEALTH AND HAZARD INFORMATION  
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EXPOSURE LIMIT FOR TOTAL PRODUCT: Monitor data listed in the Components and Hazard Information section.

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).

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

BOILING RANGE:  
256 C (493 F)

VAPOR PRESSURE:  
< 1 mm @ 20°C

SPECIFIC GRAVITY (25°C/25°C):  
(WATER = 1)  
< 1.0

VAPOR DENSITY (AIR = 1):  
NE

MOLECULAR WEIGHT:  
Wide range

PERCENT VOLATILE BY VOLUME:  
Negligible

EVAPORATION RATE @ 1 ATM. AND 25°C  
(77°F) (n-BUTYL ACETATE = 1):  
NA

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

POUR, CONGEALING OR MELTING POINT:  
n/e

FREEZING POINT:  
-48 C (-54 F)

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REACTIVITY  
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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, and other decomposition products, in case of incomplete combustion.

CONDITIONS TO AVOID:

Open flames

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TOXICITY  
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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: This material is not known to contain any chemicals on the SARA Section 313 list at a concentration greater than 1.0 percent or carcinogenic chemical on that list at a concentration greater than 0.1 percent.

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

