

ITEM: 4DNJ1 - Circulating Oil DTE Medium 5 Gallo

PICK REQ: 1174996428

MATERIAL SAFETY DATA SHEET (MSDS)

MSDS: C4238

This MSDS should be attached or kept with the respective product with which it is associated.

MATERIAL SAFETY DATA SHEET - C4238

Associated Grainger Item: 4DNJ1 - Circulating Oil DTE Medium 5 Gallo

EXXONMOBIL

PRODUCT NAME: MOBIL DTE OIL MEDIUM

REVISION DATE: 19 AUG 2011

MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT:

PRODUCT NAME: MOBIL DTE OIL MEDIUM

PRODUCT DESCRIPTION: BASE OIL AND ADDITIVES

PRODUCT CODE: 201560501570, 600155-00, 970391

INTENDED USE: TURBINE OIL

COMPANY IDENTIFICATION:

SUPPLIER:
EXXON MOBIL CORPORATION
3225 GALLOWES RD.
FAIRFAX, VA 22037
USA

24 HOUR HEALTH EMERGENCY: 609-737-4411

TRANSPORTATION EMERGENCY PHONE: 800-424-9300

EXXONMOBIL TRANSPORTATION NO.: 281-834-3296

PRODUCT TECHNICAL INFORMATION:

800-662-4525
800-947-9147

MSDS INTERNET ADDRESS:
HTTP://WWW.EXXON.COM
HTTP://WWW.MOBIL.COM

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

NO REPORTABLE HAZARDOUS SUBSTANCE(S) OR COMPLEX SUBSTANCE(S).

SECTION 3 HAZARDS IDENTIFICATION

THIS MATERIAL IS NOT CONSIDERED TO BE HAZARDOUS ACCORDING TO REGULATORY GUIDELINES (SEE (M)SDS SECTION 15).

POTENTIAL HEALTH EFFECTS:
LOW ORDER OF TOXICITY. EXCESSIVE EXPOSURE MAY RESULT IN EYE, SKIN, OR RESPIRATORY IRRITATION. HIGH-PRESSURE INJECTION UNDER SKIN MAY CAUSE SERIOUS DAMAGE.

NFPA HAZARD ID:
HEALTH 0
FLAMMABILITY 1
REACTIVITY 0

HMS HAZARD ID:
HEALTH 0
FLAMMABILITY 1
REACTIVITY 0

NOTE:
THIS MATERIAL SHOULD NOT BE USED FOR ANY OTHER PURPOSE THAN THE INTENDED USE IN SECTION 1 WITHOUT EXPERT ADVICE. HEALTH STUDIES HAVE SHOWN THAT CHEMICAL EXPOSURE MAY CAUSE POTENTIAL HUMAN HEALTH RISKS WHICH MAY VARY FROM PERSON TO PERSON.

SECTION 4 FIRST AID MEASURES

INHALATION:
REMOVE FROM FURTHER EXPOSURE. FOR THOSE PROVIDING ASSISTANCE, AVOID EXPOSURE TO YOURSELF OR OTHERS. USE ADEQUATE RESPIRATORY PROTECTION. IF RESPIRATORY IRRITATION, DIZZINESS, NAUSEA, OR UNCONSCIOUSNESS OCCURS, SEEK IMMEDIATE MEDICAL ASSISTANCE. IF BREATHING HAS STOPPED, ASSIST VENTILATION WITH A MECHANICAL DEVICE OR USE MOUTH-TO-MOUTH RESUSCITATION.

SKIN CONTACT:
WASH CONTACT AREAS WITH SOAP AND WATER. IF PRODUCT IS INJECTED INTO OR UNDER THE SKIN, OR INTO ANY PART OF THE BODY, REGARDLESS OF THE APPEARANCE OF THE WOUND OR ITS SIZE, THE INDIVIDUAL SHOULD BE EVALUATED IMMEDIATELY BY A PHYSICIAN AS A SURGICAL EMERGENCY. EVEN THOUGH INITIAL SYMPTOMS FROM HIGH PRESSURE INJECTION MAY BE MINIMAL OR ABSENT, EARLY SURGICAL TREATMENT WITHIN THE FIRST FEW HOURS MAY SIGNIFICANTLY REDUCE THE ULTIMATE EXTENT OF INJURY.

EYE CONTACT:
FLUSH THOROUGHLY WITH WATER. IF IRRITATION OCCURS, GET MEDICAL ASSISTANCE.

INGESTION:
FIRST AID IS NORMALLY NOT REQUIRED. SEEK MEDICAL ATTENTION IF DISCOMFORT OCCURS.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:

APPROPRIATE EXTINGUISHING MEDIA:

USE WATER FOG, FOAM, DRY CHEMICAL OR CARBON DIOXIDE (CO2) TO EXTINGUISH FLAMES.

INAPPROPRIATE EXTINGUISHING MEDIA: STRAIGHT STREAMS OF WATER

FIRE FIGHTING:

FIRE FIGHTING INSTRUCTIONS:
EVACUATE AREA. PREVENT RUNOFF FROM FIRE CONTROL OR DILUTION FROM ENTERING STREAMS, SEWERS, OR DRINKING WATER SUPPLY. FIREFIGHTERS SHOULD USE STANDARD PROTECTIVE EQUIPMENT AND IN ENCLOSED SPACES, SELF-CONTAINED BREATHING APPARATUS (SCBA). USE WATER SPRAY TO COOL FIRE EXPOSED SURFACES AND TO PROTECT PERSONNEL.

HAZARDOUS COMBUSTION PRODUCTS:
SMOKE, FUME, ALDEHYDES, SULFUR OXIDES, INCOMPLETE COMBUSTION PRODUCTS, OXIDES OF CARBON

FLAMMABILITY PROPERTIES:

FLASH POINT (METHOD): >200C (392F) (ASTM D-92)

FLAMMABLE LIMITS (APPROXIMATE VOLUME % IN AIR):

LEL: 0.9

UEL: 7.0

AUTOIGNITION TEMPERATURE: N/D

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES:
IN THE EVENT OF A SPILL OR ACCIDENTAL RELEASE, NOTIFY RELEVANT AUTHORITIES IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. US REGULATIONS REQUIRE REPORTING RELEASES OF THIS MATERIAL TO THE ENVIRONMENT WHICH EXCEED THE APPLICABLE REPORTABLE QUANTITY OR OIL SPILLS WHICH COULD REACH ANY WATERWAY INCLUDING INTERMITTENT DRY CREEKS. THE NATIONAL RESPONSE CENTER CAN BE REACHED AT (800) 424-8802.

PROTECTIVE MEASURES:
AVOID CONTACT WITH SPILLED MATERIAL. SEE SECTION 5 FOR FIRE FIGHTING INFORMATION. SEE THE HAZARD IDENTIFICATION SECTION FOR SIGNIFICANT HAZARDS. SEE SECTION 4 FOR FIRST AID ADVICE. SEE SECTION 8 FOR ADVICE ON THE MINIMUM REQUIREMENTS FOR PERSONAL PROTECTIVE EQUIPMENT. ADDITIONAL PROTECTIVE MEASURES MAY BE NECESSARY, DEPENDING ON THE SPECIFIC CIRCUMSTANCES AND/OR THE EXPERT JUDGMENT OF THE EMERGENCY RESPONDERS.

FOR EMERGENCY RESPONDERS:

RESPIRATORY PROTECTION:
RESPIRATORY PROTECTION WILL BE NECESSARY ONLY IN SPECIAL CASES, E.G., FORMATION OF MISTS. HALF-FACE OR FULL-FACE RESPIRATOR WITH FILTER(S) FOR DUST/ORGANIC VAPOR OR SELF-CONTAINED BREATHING APPARATUS (SCBA) CAN BE USED DEPENDING ON THE SIZE OF SPILL AND POTENTIAL LEVEL OF EXPOSURE. IF THE EXPOSURE CANNOT BE COMPLETELY CHARACTERIZED OR AN OXYGEN DEFICIENT ATMOSPHERE IS POSSIBLE OR ANTICIPATED, SCBA IS RECOMMENDED. WORK GLOVES THAT ARE RESISTANT TO HYDROCARBONS ARE RECOMMENDED. GLOVES MADE OF POLYVINYL ACETATE (PVA) ARE NOT WATER-RESISTANT AND ARE NOT SUITABLE FOR EMERGENCY USE. CHEMICAL GOGGLES ARE RECOMMENDED IF SPLASHES OR CONTACT WITH EYES IS POSSIBLE.

SMALL SPILLS: NORMAL ANTISTATIC WORK CLOTHES ARE USUALLY ADEQUATE.

LARGE SPILLS:
FULL BODY SUIT OF CHEMICAL RESISTANT, ANTISTATIC MATERIAL IS RECOMMENDED.

SPILL MANAGEMENT:

LAND SPILL:
STOP LEAK IF YOU CAN DO IT WITHOUT RISK. RECOVER BY PUMPING OR WITH SUITABLE ABSORBENT.

WATER SPILL:
STOP LEAK IF YOU CAN DO IT WITHOUT RISK. CONFINE THE SPILL IMMEDIATELY WITH BOOMS. WARN OTHER SHIPPING. REMOVE FROM THE SURFACE BY SKIMMING OR WITH SUITABLE ABSORBENTS. SEEK THE ADVICE OF A SPECIALIST BEFORE USING DISPERSANTS.

WATER SPILL AND LAND SPILL RECOMMENDATIONS ARE BASED ON THE MOST LIKELY SPILL SCENARIO FOR THIS MATERIAL; HOWEVER, GEOGRAPHIC CONDITIONS, WIND, TEMPERATURE, (AND IN THE CASE OF A WATER SPILL) WAVE AND CURRENT DIRECTION AND SPEED MAY GREATLY INFLUENCE THE APPROPRIATE ACTION TO BE TAKEN. FOR THIS REASON, LOCAL EXPERTS SHOULD BE CONSULTED.

NOTE: LOCAL REGULATIONS MAY PRESCRIBE OR LIMIT ACTION TO BE TAKEN.

ENVIRONMENTAL PRECAUTIONS:

LARGE SPILLS:
DIKE FAR AHEAD OF LIQUID SPILL FOR LATER RECOVERY AND DISPOSAL. PREVENT ENTRY INTO WATERWAYS, SEWERS, BASEMENTS OR CONFINED AREAS.

SECTION 7 HANDLING AND STORAGE

HANDLING:
PREVENT SMALL SPILLS AND LEAKAGE TO AVOID SLIP HAZARD. MATERIAL CAN ACCUMULATE STATIC CHARGES WHICH MAY CAUSE AN ELECTRICAL SPARK (IGNITION SOURCE). WHEN THE MATERIAL IS HANDLED IN BULK, AN ELECTRICAL SPARK COULD IGNITE ANY FLAMMABLE VAPORS FROM LIQUIDS OR RESIDUES THAT MAY BE PRESENT (E.G., DURING SWITCH-LOADING OPERATIONS). USE PROPER BONDING AND/OR GROUND PROCEDURES. HOWEVER, BONDING AND GROUNDS MAY NOT ELIMINATE THE HAZARD FROM STATIC ACCUMULATION. CONSULT LOCAL APPLICABLE STANDARDS FOR GUIDANCE. ADDITIONAL REFERENCES INCLUDE AMERICAN PETROLEUM INSTITUTE 2003 (PROTECTION AGAINST IGNITIONS ARISING OUT OF STATIC, LIGHTNING AND STRAY CURRENTS) OR NATIONAL FIRE PROTECTION AGENCY 77 (RECOMMENDED PRACTICE ON STATIC ELECTRICITY) OR CENELEC CLC/TR 50404 (ELECTROSTATICS - CODE OF PRACTICE FOR THE AVOIDANCE OF HAZARDS DUE TO STATIC ELECTRICITY).

STATIC ACCUMULATOR: THIS MATERIAL IS A STATIC ACCUMULATOR.

STORAGE:
THE CONTAINER CHOICE, FOR EXAMPLE STORAGE VESSEL, MAY EFFECT STATIC
ACUMULATION AND DISSIPATION. DO NOT STORE IN OPEN OR UNLABELED CONTAINERS.
KEEP AWAY FROM INCOMPATIBLE MATERIALS.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS/STANDARDS FOR MATERIALS THAT CAN BE FORMED WHEN HANDLING
THIS PRODUCT:

WHEN MISTS/AEROSOLS CAN OCCUR THE FOLLOWING ARE RECOMMENDED:
5 MG/M3 - ACGIH TLV (INHALABLE FRACTION)
5 MG/M3 - OSHA PEL.

NOTE:
LIMITS/STANDARDS SHOWN FOR GUIDANCE ONLY. FOLLOW APPLICABLE REGULATIONS.

ENGINEERING CONTROLS:
THE LEVEL OF PROTECTION AND TYPES OF CONTROLS NECESSARY WILL VARY DEPENDING
UPON POTENTIAL EXPOSURE CONDITIONS.

CONTROL MEASURES TO CONSIDER:
NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE
VENTILATION.

PERSONAL PROTECTION:
PERSONAL PROTECTIVE EQUIPMENT SELECTIONS VARY BASED ON POTENTIAL EXPOSURE
CONDITIONS SUCH AS APPLICATIONS, HANDLING PRACTICES, CONCENTRATION AND
VENTILATION. INFORMATION ON THE SELECTION OF PROTECTIVE EQUIPMENT FOR USE
WITH THIS MATERIAL, AS PROVIDED BELOW, IS BASED UPON INTENDED, NORMAL USAGE.

RESPIRATORY PROTECTION:
IF ENGINEERING CONTROLS DO NOT MAINTAIN AIRBORNE CONTAMINANT CONCENTRATIONS
AT A LEVEL WHICH IS ADEQUATE TO PROTECT WORKER HEALTH, AN APPROVED
RESPIRATOR MAY BE APPROPRIATE. RESPIRATOR SELECTION, USE, AND MAINTENANCE
MUST BE IN ACCORDANCE WITH REGULATORY REQUIREMENTS, IF APPLICABLE.

TYPES OF RESPIRATORS TO BE CONSIDERED FOR THIS MATERIAL INCLUDE:
NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE
VENTILATION.

FOR HIGH AIRBORNE CONCENTRATIONS, USE AN APPROVED SUPPLIED-AIR RESPIRATOR,
OPERATED IN POSITIVE PRESSURE MODE. SUPPLIED AIR RESPIRATORS WITH AN ESCAPE
BOTTLE MAY BE APPROPRIATE WHEN OXYGEN LEVELS ARE INADEQUATE, GAS/VAPOR
WARNING PROPERTIES ARE POOR, OR IF AIR PURIFYING FILTER CAPACITY/RATING MAY
BE EXCEEDED.

HAND PROTECTION:
ANY SPECIFIC GLOVE INFORMATION PROVIDED IS BASED ON PUBLISHED LITERATURE AND
GLOVE MANUFACTURER DATA. GLOVE SUITABILITY AND BREAKTHROUGH TIME WILL DIFFER
DEPENDING ON THE SPECIFIC USE CONDITIONS. CONTACT THE GLOVE MANUFACTURER FOR
SPECIFIC ADVICE ON GLOVE SELECTION AND BREAKTHROUGH TIMES FOR YOUR USE
CONDITIONS. INSPECT AND REPLACE WORN OR DAMAGED GLOVES.

THE TYPES OF GLOVES TO BE CONSIDERED FOR THIS MATERIAL INCLUDE:
NO PROTECTION IS ORDINARILY REQUIRED UNDER NORMAL CONDITIONS OF USE.

EYE PROTECTION:
IF CONTACT IS LIKELY, SAFETY GLASSES WITH SIDE SHIELDS ARE RECOMMENDED.

SKIN AND BODY PROTECTION:
ANY SPECIFIC CLOTHING INFORMATION PROVIDED IS BASED ON PUBLISHED LITERATURE
OR MANUFACTURER DATA.

THE TYPES OF CLOTHING TO BE CONSIDERED FOR THIS MATERIAL INCLUDE:
NO SKIN PROTECTION IS ORDINARILY REQUIRED UNDER NORMAL CONDITIONS OF USE.
IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE PRACTICES, PRECAUTIONS SHOULD BE
TAKEN TO AVOID SKIN CONTACT.

SPECIFIC HYGIENE MEASURES:
ALWAYS OBSERVE GOOD PERSONAL HYGIENE MEASURES, SUCH AS WASHING AFTER
HANDLING THE MATERIAL AND BEFORE EATING, DRINKING, AND/OR SMOKING. ROUTINELY
WASH WORK CLOTHING AND PROTECTIVE EQUIPMENT TO REMOVE CONTAMINANTS. DISCARD
CONTAMINATED CLOTHING AND FOOTWEAR THAT CANNOT BE CLEANED. PRACTICE GOOD
HOUSEKEEPING.

ENVIRONMENTAL CONTROLS: SEE SECTIONS 6, 7, 12, 13.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

NOTE:
PHYSICAL AND CHEMICAL PROPERTIES ARE PROVIDED FOR SAFETY, HEALTH AND
ENVIRONMENTAL CONSIDERATIONS ONLY AND MAY NOT FULLY REPRESENT PRODUCT
SPECIFICATIONS. CONTACT THE SUPPLIER FOR ADDITIONAL INFORMATION.

GENERAL INFORMATION:

PHYSICAL STATE: LIQUID

COLOR: AMBER

ODOR: CHARACTERISTIC

ODOR THRESHOLD: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION:

RELATIVE DENSITY (AT 15 C): 0.86

FLASH POINT (METHOD): >200C (392F) (ASTM D-92)

FLAMMABLE LIMITS (APPROXIMATE VOLUME % IN AIR):

LEL: 0.9

UEL: 7.0

AUTOIGNITION TEMPERATURE: N/D

BOILING POINT / RANGE: > 316C (600F)

VAPOR DENSITY (AIR = 1): >2 AT 101 KPA

VAPOR PRESSURE: <0.013 KPA (0.1 MMHg) AT 20 C

EVAPORATION RATE (n-BUTYL ACETATE = 1): N/D

pH: N/A

LOG POW (n-OCTANOL/WATER PARTITION COEFFICIENT): >3.5

SOLUBILITY IN WATER: NEGLIGIBLE

VISCOSITY:
44.5 CST (44.5 MM2/SEC) AT 40 C
6.9 CST (6.9 MM2/SEC) AT 100C

OXIDIZING PROPERTIES: SEE HAZARDS IDENTIFICATION SECTION.

OTHER INFORMATION:

FREEZING POINT: N/D

MELTING POINT: N/A

POUR POINT: -15 DEG. C (5 DEG. F)

DMSO EXTRACT (MINERAL OIL ONLY), IP-346: <3% WT

SECTION 10 STABILITY AND REACTIVITY

STABILITY: MATERIAL IS STABLE UNDER NORMAL CONDITIONS.

CONDITIONS TO AVOID: EXCESSIVE HEAT. HIGH ENERGY SOURCES OF IGNITION.

MATERIALS TO AVOID: STRONG OXIDIZERS

HAZARDOUS DECOMPOSITION PRODUCTS:
MATERIAL DOES NOT DECOMPOSE AT AMBIENT TEMPERATURES.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

ROUTE OF EXPOSURE

CONCLUSION / REMARKS

INHALATION:

TOXICITY (RAT):
LC50: >5000 MG/M3

MINIMALLY TOXIC. BASED ON TEST DATA FOR
STRUCTURALLY SIMILAR MATERIALS.

IRRITATION:
NO END POINT DATA.

NEGLIGIBLE HAZARD AT AMBIENT/NORMAL
HANDLING TEMPERATURES.

BASED ON ASSESSMENT OF THE COMPONENTS.

INGESTION:

TOXICITY (RAT):
LD50: >5000 MG/KG

MINIMALLY TOXIC. BASED ON TEST DATA FOR
STRUCTURALLY SIMILAR MATERIALS.

SKIN:

TOXICITY (RABBIT):
LD50: >5000 MG/KG

MINIMALLY TOXIC. BASED ON TEST DATA FOR
STRUCTURALLY SIMILAR MATERIALS.

IRRITATION (RABBIT):
DATA AVAILABLE.

NEGLIGIBLE IRRITATION TO SKIN AT AMBIENT
TEMPERATURES. BASED ON TEST DATA FOR
STRUCTURALLY SIMILAR MATERIALS.

EYE:

IRRITATION (RABBIT):
DATA AVAILABLE.

MAY CAUSE MILD, SHORT-LASTING DISCOMFORT
TO EYES. BASED ON TEST DATA FOR
STRUCTURALLY SIMILAR MATERIALS.

CHRONIC/OTHER EFFECTS:

CONTAINS:

BASE OIL SEVERELY REFINED:
NOT CARCINOGENIC IN ANIMAL STUDIES. REPRESENTATIVE MATERIAL PASSES IP-346,
MODIFIED AMES TEST, AND/OR OTHER SCREENING TESTS. DERMAL AND INHALATION
STUDIES SHOWED MINIMAL EFFECTS; LUNG NON-SPECIFIC INFILTRATION OF IMMUNE
CELLS, OIL DEPOSITION AND MINIMAL GRANULOMA FORMATION. NOT SENSITIZING IN
TEST ANIMALS.

ADDITIONAL INFORMATION IS AVAILABLE BY REQUEST.

THE FOLLOWING INGREDIENTS ARE CITED ON THE LISTS BELOW: NONE.

REGULATORY LISTS SEARCHED:

- 1 = NTP CARC
- 2 = NTP SUS
- 3 = IARC 1
- 4 = IARC 2A
- 5 = IARC 2B
- 6 = OSHA CARC

SECTION 12 ECOLOGICAL INFORMATION

THE INFORMATION GIVEN IS BASED ON DATA AVAILABLE FOR THE MATERIAL, THE
COMPONENTS OF THE MATERIAL, AND SIMILAR MATERIALS.

ECOTOXICITY:

MATERIAL: NOT EXPECTED TO BE HARMFUL TO AQUATIC ORGANISMS.

MOBILITY:

BASE OIL COMPONENT:
LOW SOLUBILITY AND FLOATS AND IS EXPECTED TO MIGRATE FROM WATER TO THE LAND.
EXPECTED TO PARTITION TO SEDIMENT AND WASTEWATER SOLIDS.

PERSISTENCE AND DEGRADABILITY:

BIODEGRADATION:

BASE OIL COMPONENT: EXPECTED TO BE INHERENTLY BIODEGRADABLE

BIOACCUMULATION POTENTIAL:

BASE OIL COMPONENT:
HAS THE POTENTIAL TO BIOACCUMULATE, HOWEVER METABOLISM OR PHYSICAL
PROPERTIES MAY REDUCE THE BIOCONCENTRATION OR LIMIT BIOAVAILABILITY.

SECTION 13 DISPOSAL CONSIDERATIONS

DISPOSAL RECOMMENDATIONS BASED ON MATERIAL AS SUPPLIED. DISPOSAL MUST BE IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND MATERIAL CHARACTERISTICS AT TIME OF DISPOSAL.

DISPOSAL RECOMMENDATIONS:

PRODUCT IS SUITABLE FOR BURNING IN AN ENCLOSED CONTROLLED BURNER FOR FUEL VALUE OR DISPOSAL BY SUPERVISED INCINERATION AT VERY HIGH TEMPERATURES TO PREVENT FORMATION OF UNDESIRABLE COMBUSTION PRODUCTS. PROTECT THE ENVIRONMENT. DISPOSE OF USED OIL AT DESIGNATED SITES. MINIMIZE SKIN CONTACT. DO NOT MIX USED OILS WITH SOLVENTS, BRAKE FLUIDS OR COOLANTS.

REGULATORY DISPOSAL INFORMATION:

RCRA INFORMATION:

THE UNUSED PRODUCT, IN OUR OPINION, IS NOT SPECIFICALLY LISTED BY THE EPA AS A HAZARDOUS WASTE (40 CFR, PART 261D), NOR IS IT FORMULATED TO CONTAIN MATERIALS WHICH ARE LISTED AS HAZARDOUS WASTES. IT DOES NOT EXHIBIT THE HAZARDOUS CHARACTERISTICS OF IGNITABILITY, CORROSITIVITY OR REACTIVITY AND IS NOT FORMULATED WITH CONTAMINANTS AS DETERMINED BY THE TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP). HOWEVER, USED PRODUCT MAY BE REGULATED.

EMPTY CONTAINER WARNING:

EMPTY CONTAINER WARNING (WHERE APPLICABLE):

EMPTY CONTAINERS MAY CONTAIN RESIDUE AND CAN BE DANGEROUS. DO NOT ATTEMPT TO REFILL OR CLEAN CONTAINERS WITHOUT PROPER INSTRUCTIONS. EMPTY DRUMS SHOULD BE COMPLETELY DRAINED AND SAFELY STORED UNTIL APPROPRIATELY RECONDITIONED OR DISPOSED. EMPTY CONTAINERS SHOULD BE TAKEN FOR RECYCLING, RECOVERY, OR DISPOSAL THROUGH SUITABLY QUALIFIED OR LICENSED CONTRACTOR AND IN ACCORDANCE WITH GOVERNMENTAL REGULATIONS. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 TRANSPORT INFORMATION

LAND (DOT): NOT REGULATED FOR LAND TRANSPORT

LAND (TDG): NOT REGULATED FOR LAND TRANSPORT

SEA (IMDG): NOT REGULATED FOR SEA TRANSPORT ACCORDING TO IMDG-CODE

AIR (IATA): NOT REGULATED FOR AIR TRANSPORT

SECTION 15 REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD:

WHEN USED FOR ITS INTENDED PURPOSES, THIS MATERIAL IS NOT CLASSIFIED AS HAZARDOUS IN ACCORDANCE WITH OSHA 29 CFR 1910.1200.

COMPLIES WITH THE FOLLOWING NATIONAL/REGIONAL CHEMICAL INVENTORY REQUIREMENTS: EINECS, DSL, AICS, IECSC, TSCA, PICCS

EPCRA: THIS MATERIAL CONTAINS NO EXTREMELY HAZARDOUS SUBSTANCES.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: NONE.

SARA (313) TOXIC RELEASE INVENTORY:

THIS MATERIAL CONTAINS NO CHEMICALS SUBJECT TO THE SUPPLIER NOTIFICATION REQUIREMENTS OF THE SARA 313 TOXIC RELEASE PROGRAM.

THE FOLLOWING INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
PHOSPHORODITHOIC ACID, O,O-DI C1-14-ALKYL ESTERS, ZINC SALTS (2:1) (ZDDP)	68649-42-3	15

REGULATORY LISTS SEARCHED:

- 1 = ACGIH ALL
- 2 = ACGIH A1
- 3 = ACGIH A2
- 4 = OSHA Z
- 5 = TSCA 4
- 6 = TSCA 5A2
- 7 = TSCA 5E
- 8 = TSCA 6
- 9 = TSCA 12B
- 10 = CA P65 CARC
- 11 = CA P65 REPRO
- 12 = CA RTK
- 13 = IL RTK
- 14 = LA RTK
- 15 = MI 293
- 16 = MN RTK
- 17 = NJ RTK
- 18 = PA RTK
- 19 = RI RTK

CODE KEY:

CARC=CARCINOGEN
REPRO=REPRODUCTIVE

SECTION 16 OTHER INFORMATION

N/D = NOT DETERMINED
N/A = NOT APPLICABLE

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:
REVISION CHANGES:

- SECTION 04: FIRST AID INHALATION - HEADER WAS MODIFIED.
- SECTION 04: FIRST AID INGESTION - HEADER WAS MODIFIED.
- SECTION 13: DISPOSAL CONSIDERATIONS - DISPOSAL RECOMMENDATIONS WAS MODIFIED.
- SECTION 09: PHYS/CHEM PROPERTIES NOTE WAS MODIFIED.
- SECTION 09: EVAPORATION RATE - HEADER WAS MODIFIED.
- SECTION 07: HANDLING AND STORAGE - HANDLING WAS MODIFIED.
- SECTION 07: HANDLING AND STORAGE - STORAGE PHRASES WAS MODIFIED.
- SECTION 11: INHALATION LETHALITY TEST DATA WAS MODIFIED.
- SECTION 05: HAZARDOUS COMBUSTION PRODUCTS WAS MODIFIED.
- SECTION 09: FLASH POINT C (F) WAS MODIFIED.
- SECTION 09: VISCOSITY WAS MODIFIED.
- SECTION 09: VISCOSITY WAS MODIFIED.
- SECTION 14: SEA (IMDG) - HEADER WAS MODIFIED.

- SECTION 14: AIR (IATA) - HEADER WAS MODIFIED.
- SECTION 14: LAND (TDG) - HEADER WAS MODIFIED.
- SECTION 14: LAND (DOT) - HEADER WAS MODIFIED.
- SECTION 14: LAND (DOT) - DEFAULT WAS MODIFIED.
- SECTION 14: LAND (TDG) - DEFAULT WAS MODIFIED.
- SECTION 14: SEA (IMDG) - DEFAULT WAS MODIFIED.
- SECTION 14: AIR (IATA) - DEFAULT WAS MODIFIED.
- SECTION 15: NATIONAL CHEMICAL INVENTORY LISTING - HEADER WAS MODIFIED.
- SECTION 15: NATIONAL CHEMICAL INVENTORY LISTING WAS MODIFIED.
- SECTION 08: EXPOSURE LIMITS/STANDARDS WAS MODIFIED.
- SECTION 09: OXIDIZING PROPERTIES WAS MODIFIED.
- SECTION 06: PROTECTIVE MEASURES WAS ADDED.
- SECTION 06: ACCIDENTAL RELEASE - PROTECTIVE MEASURES - HEADER WAS ADDED.

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INTERNAL USE ONLY:

MHC: 0B, 0B, 0, 0, 0, 0

PPEC: A

DGN: 2007070XUS (547711)

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