

# ITEM: 2RV31 - Mobilux EP 2 EP Grease NLGI 2 13.7

PICK REQ: 1435637803

SAFETY DATA SHEET (SDS)

SDS: D6085

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

SDS - D6085

Associated Items  
2RV31, SMT9

EXXONMOBIL

PRODUCT NAME: MOBILUX EP 2

REVISION DATE: 28 JUL 2015

SAFETY DATA SHEET

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT:

PRODUCT NAME: MOBILUX EP 2

PRODUCT DESCRIPTION: BASE OIL AND ADDITIVES

PRODUCT CODE: 2015A0208050, 641274-00, 970717

INTENDED USE: GREASE

COMPANY IDENTIFICATION:

SUPPLIER:  
EXXON MOBIL CORPORATION  
22777 SPRINGWOODS VILLAGE PARKWAY  
SPRING, TX. 77253  
USA

24 HOUR HEALTH EMERGENCY: 609-737-4411

TRANSPORTATION EMERGENCY PHONE: 800-424-9300 OR 703-527-3887 CHEMTREC

PRODUCT TECHNICAL INFORMATION: 800-662-4525

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

## SECTION 2 HAZARDS IDENTIFICATION

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

OTHER HAZARD INFORMATION:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC):  
NONE AS DEFINED UNDER 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS: NO SIGNIFICANT HAZARDS.

HEALTH HAZARDS:  
HIGH-PRESSURE INJECTION UNDER SKIN MAY CAUSE SERIOUS DAMAGE. EXCESSIVE EXPOSURE MAY RESULT IN EYE, SKIN, OR RESPIRATORY IRRITATION.

ENVIRONMENTAL HAZARDS: NO SIGNIFICANT HAZARDS.

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 3 COMPOSITION / INFORMATION ON INGREDIENTS

THIS MATERIAL IS DEFINED AS A MIXTURE.

HAZARDOUS SUBSTANCE(S) OR COMPLEX SUBSTANCE(S) REQUIRED FOR DISCLOSURE:

NAME	CAS#	CONCENTRATION*	GHS HAZARD CODES
PHOSPHORIC ACID ESTERS, AMINE SALT	61188-14-5	0.1 - <1%	H318, H401, H411
ZINC DITHIOPHOSPHATE	68649-42-3	1 - <2.5%	H315, H318, H401, H411

\* ALL CONCENTRATIONS ARE PERCENT BY WEIGHT UNLESS MATERIAL IS A GAS. GAS CONCENTRATIONS ARE IN PERCENT BY VOLUME.

AS PER PARAGRAPH (I) OF 29 CFR 1910.1200, FORMULATION IS CONSIDERED A TRADE SECRET AND SPECIFIC CHEMICAL IDENTITY AND EXACT PERCENTAGE (CONCENTRATION) OF COMPOSITION MAY HAVE BEEN WITHHELD. SPECIFIC CHEMICAL IDENTITY AND EXACT PERCENTAGE COMPOSITION WILL BE PROVIDED TO HEALTH PROFESSIONALS, EMPLOYERS, OR DESIGNATED REPRESENTATIVES IN ACCORDANCE WITH APPLICABLE PROVISIONS OF PARAGRAPH (I).

## SECTION 4 FIRST AID MEASURES

INHALATION:  
UNDER NORMAL CONDITIONS OF INTENDED USE, THIS MATERIAL IS NOT EXPECTED TO BE AN INHALATION HAZARD.

### 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:

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

FLAMMABILITY PROPERTIES:

FLASH POINT (METHOD):

>204 DEG. C (400 DEG. F) [EST. FOR OIL, ASTM D-92 (COC)]

FLAMMABLE LIMITS (APPROXIMATE VOLUME % IN AIR):

LEL: N/D

UEL: N/D

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:

ALLOW SPILLED MATERIAL TO SOLIDIFY AND SCRAPE UP WITH SHOVELS INTO A SUITABLE CONTAINER FOR RECYCLE OR DISPOSAL. SCRAPE UP SPILLED MATERIAL WITH SHOVELS INTO A SUITABLE CONTAINER FOR RECYCLE OR DISPOSAL.

WATER SPILL:

STOP LEAK IF YOU CAN DO IT WITHOUT RISK. CONFINE THE SPILL IMMEDIATELY WITH BOOMS. WARN OTHER SHIPPING. SKIM FROM SURFACE.

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:

PREVENT ENTRY INTO WATERWAYS, SEWERS, BASEMENTS OR CONFINED AREAS.

## SECTION 7 HANDLING AND STORAGE

HANDLING: PREVENT SMALL SPILLS AND LEAKAGE TO AVOID SLIP HAZARD.  
STATIC ACCUMULATOR: THIS MATERIAL IS NOT A STATIC ACCUMULATOR.  
STORAGE: DO NOT STORE IN OPEN OR UNLABELLED CONTAINERS.

#### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

NOTE:  
LIMITS/STANDARDS SHOWN FOR GUIDANCE ONLY. FOLLOW APPLICABLE REGULATIONS.  
NO BIOLOGICAL LIMITS ALLOCATED.

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 PROTECTION IS ORDINARILY REQUIRED UNDER NORMAL 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:  
COMPLY WITH APPLICABLE ENVIRONMENTAL REGULATIONS LIMITING DISCHARGE TO AIR, WATER AND SOIL. PROTECT THE ENVIRONMENT BY APPLYING APPROPRIATE CONTROL MEASURES TO PREVENT OR LIMIT EMISSIONS.

#### 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: SOLID

FORM: SEMI-FLUID

COLOR: BROWN

ODOR: CHARACTERISTIC

ODOR THRESHOLD: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION:

RELATIVE DENSITY (AT 15 DEG. C): 0.92

FLAMMABILITY (SOLID, GAS):

FLASH POINT [METHOD]:  
>204 DEG. C (400 DEG. F) [EST. FOR OIL, ASTM D-92 (COC)]

FLAMMABLE LIMITS (APPROXIMATE VOLUME % IN AIR):

LEL: N/D

UEL: N/D

AUTOIGNITION TEMPERATURE: N/D

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

DECOMPOSITION TEMPERATURE: N/D

VAPOR DENSITY (AIR = 1): N/D

VAPOR PRESSURE: <0.013 KPA (0.1 MMHg) AT 20 DEG. 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: 150 CST (150 MM2/SEC) AT 40 DEG. C

OXIDIZING PROPERTIES: SEE HAZARDS IDENTIFICATION SECTION.

OTHER INFORMATION:

FREEZING POINT: N/D

MELTING POINT: N/D

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

NOTE:  
MOST PHYSICAL PROPERTIES ABOVE ARE FOR THE OIL COMPONENT IN THE MATERIAL.

#### SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: SEE SUB-SECTIONS BELOW.

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.

POSSIBILITY OF HAZARDOUS REACTIONS:  
HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

#### SECTION 11 TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS:

HAZARD CLASS CONCLUSION / REMARKS

INHALATION:

ACUTE TOXICITY:  
NO END POINT DATA FOR MATERIAL. MINIMALLY TOXIC. BASED ON ASSESSMENT OF THE COMPONENTS.

IRRITATION:  
NO END POINT DATA FOR MATERIAL. NEGLIGIBLE HAZARD AT AMBIENT/NORM HANDLING TEMPERATURES.

INGESTION:

ACUTE TOXICITY:  
NO END POINT DATA FOR MATERIAL. MINIMALLY TOXIC. BASED ON ASSESSMENT OF THE COMPONENTS.

SKIN:

ACUTE TOXICITY:  
NO END POINT DATA FOR MATERIAL. MINIMALLY TOXIC. BASED ON ASSESSMENT OF THE COMPONENTS.

SKIN CORROSION/IRRITATION:  
NO END POINT DATA FOR MATERIAL. NEGLIGIBLE IRRITATION TO SKIN AT AMBIENT TEMPERATURES. BASED ON ASSESSMENT OF THE COMPONENTS.

EYE:

SERIOUS EYE DAMAGE/IRRITATION:  
NO END POINT DATA FOR MATERIAL. MAY CAUSE MILD, SHORT-LASTING DISCOMFORT TO EYES. BASED ON ASSESSMENT OF THE COMPONENTS.

SENSITIZATION:

RESPIRATORY SENSITIZATION:  
NO END POINT DATA FOR MATERIAL. NOT EXPECTED TO BE A RESPIRATORY SENSITIZER.

SKIN SENSITIZATION:  
NO END POINT DATA FOR MATERIAL. NOT EXPECTED TO BE A SKIN SENSITIZER. BASED ON ASSESSMENT OF THE COMPONENTS.

ASPIRATION:  
DATA AVAILABLE. NOT EXPECTED TO BE AN ASPIRATION HAZARD. BASED ON PHYSICO-CHEMICAL PROPERTIES OF THE MATERIAL.

GERM CELL MUTAGENICITY:  
NO END POINT DATA FOR MATERIAL. NOT EXPECTED TO BE A GERM CELL MUTAGEN. BASED ON ASSESSMENT OF THE COMPONENTS.

CARCINOGENICITY:  
NO END POINT DATA FOR MATERIAL. NOT EXPECTED TO CAUSE CANCER. BASED ON ASSESSMENT OF THE COMPONENTS.

REPRODUCTIVE TOXICITY:  
NO END POINT DATA FOR MATERIAL. NOT EXPECTED TO BE A REPRODUCTIVE TOXICANT. BASED ON ASSESSMENT OF THE COMPONENTS.

LACTATION:  
NO END POINT DATA FOR MATERIAL. NOT EXPECTED TO CAUSE HARM TO BREAST-FED CHILDREN.

SPECIFIC TARGET ORGAN TOXICITY (STOT):

SINGLE EXPOSURE:  
NO END POINT DATA FOR MATERIAL. NOT EXPECTED TO CAUSE ORGAN DAMAGE FROM A SINGLE EXPOSURE.

REPEATED EXPOSURE:  
NO END POINT DATA FOR MATERIAL. NOT EXPECTED TO CAUSE ORGAN DAMAGE FROM PROLONGED OR REPEATED EXPOSURE. BASED ON ASSESSMENT OF THE COMPONENTS.

OTHER INFORMATION:

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.

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.

#### 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, CORROSIVITY 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 PRESSURIZE, 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

MARINE POLLUTANT: NO

AIR (IATA): NOT REGULATED FOR AIR TRANSPORT

#### SECTION 15 REGULATORY INFORMATION

#### OSHA HAZARD COMMUNICATION STANDARD:

THIS MATERIAL IS NOT CONSIDERED HAZARDOUS IN ACCORDANCE WITH OSHA HAZCOM 2012, 29 CFR 1910.1200.

LISTED OR EXEMPT FROM LISTING/NOTIFICATION ON THE FOLLOWING CHEMICAL INVENTORIES: AICS, DSL, IBCSC, KECI, PICCS, TSCA

#### RCRA SECTION 302:

THIS MATERIAL CONTAINS NO EXTREMELY HAZARDOUS SUBSTANCES.

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

SARA (313) TOXIC RELEASE INVENTORY:

CHEMICAL NAME	CAS NUMBER	TYPICAL VALUE
ZINC DITHIOPHOSPHATE	68649-42-3	1 - <2.5%

THE FOLLOWING INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
DIPHENYLAMINE	122-39-4	18

ZINC DITHIOPHOSPHATE

68649-42-3

13, 15, 17, 19

#### REGULATORY LISTS SEARCHED:

- 1 = ACGIH A1
- 2 = ACGIH A1
- 3 = ACGIH A2
- 4 = OSHA 2
- 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 = IA 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

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (FOR INFORMATION ONLY):

H315: CAUSES SKIN IRRITATION; SKIN CORR/IRRITATION, CAT 2

H318: CAUSES SERIOUS EYE DAMAGE; SERIOUS EYE DAMAGE/IRR, CAT 1

H401: TOXIC TO AQUATIC LIFE; ACUTE ENV TOX, CAT 2

#### H411:

TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS; CHRONIC ENV TOX, CAT 2

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

#### REVISION CHANGES:

SECTION 05: HAZARDOUS COMBUSTION PRODUCTS INFORMATION WAS MODIFIED.

SECTION 14: MARINE POLLUTANT INFORMATION WAS MODIFIED.

#### SECTION 16:

REVISION INFORMATION - IMPLEMENTATION OF GHS REQUIREMENTS PHRASE. INFORMATION WAS DELETED.

SECTION 01: COMPANY MAILING ADDRESS INFORMATION WAS MODIFIED.

COMPOSITION: COMPONENT TABLE INFORMATION WAS MODIFIED.

#### SECTION 15:

SARA (313) TOXIC RELEASE INVENTORY - TABLE INFORMATION WAS MODIFIED.

SECTION 05: HAZARDOUS COMBUSTION PRODUCTS INFORMATION WAS MODIFIED.

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#### INTERNAL USE ONLY:

MHC: 0B, 0B, 0, 0, 0, 0  
PPEC: A

DGN: 2009877XUS (539035)

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# ITEM: 4ZF13 - Way Oil Brown Mineral 5 gal.

PICK\_REQ: 1435637803

## SAFETY DATA SHEET (SDS)

SDS: D6119

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

SDS - D6119

Associated Items  
4ZF13

EXXONMOBIL

PRODUCT NAME: MOBIL VACTRA OIL NO. 2

REVISION DATE: 17 MAR 2015

SAFETY DATA SHEET

### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT:

PRODUCT NAME: MOBIL VACTRA OIL NO. 2

PRODUCT DESCRIPTION: BASE OIL AND ADDITIVES

PRODUCT CODE: 201560901015, 600494-00, 970716

INTENDED USE: LUBRICANT

COMPANY IDENTIFICATION:

SUPPLIER:  
EXXON MOBIL CORPORATION  
22777 SPRINGWOODS VILLAGE PARKWAY  
SPRING, TX. 77389  
USA

24 HOUR HEALTH EMERGENCY: 609-737-4411

TRANSPORTATION EMERGENCY PHONE: 800-424-9300 OR 703-527-3887 CHEMTREC

PRODUCT TECHNICAL INFORMATION: 800-662-4525

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

### SECTION 2 HAZARDS IDENTIFICATION

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

OTHER HAZARD INFORMATION:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC):  
NONE AS DEFINED UNDER 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS: NO SIGNIFICANT HAZARDS.

HEALTH HAZARDS:  
HIGH-PRESSURE INJECTION UNDER SKIN MAY CAUSE SERIOUS DAMAGE. EXCESSIVE EXPOSURE MAY RESULT IN EYE, SKIN, OR RESPIRATORY IRRITATION.

ENVIRONMENTAL HAZARDS: NO SIGNIFICANT HAZARDS.

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 3 COMPOSITION / INFORMATION ON INGREDIENTS

THIS MATERIAL IS DEFINED AS A MIXTURE.

HAZARDOUS SUBSTANCE(S) OR COMPLEX SUBSTANCE(S) REQUIRED FOR DISCLOSURE:

NAME	CAS#	CONCENTRATION*	GHS HAZARD CODES
2,6-DI-TERT-BUTYL-P-CRESOL	128-37-0	0.1 - <1%	H400 (M FACTOR 1), H410 (M FACTOR 1)
PHOSPHORIC ACID ESTERS, AMINE SALT	0.1 - <1%	H226, H302, H317, H318, H401, H411	

\* ALL CONCENTRATIONS ARE PERCENT BY WEIGHT UNLESS MATERIAL IS A GAS.  
GAS CONCENTRATIONS ARE IN PERCENT BY VOLUME.

AS PER PARAGRAPH (I) OF 29 CFR 1910.1200, FORMULATION IS CONSIDERED A TRADE SECRET AND SPECIFIC CHEMICAL IDENTITY AND EXACT PERCENTAGE (CONCENTRATION) OF COMPOSITION MAY HAVE BEEN WITHHELD. SPECIFIC CHEMICAL IDENTITY AND EXACT PERCENTAGE COMPOSITION WILL BE PROVIDED TO HEALTH PROFESSIONALS, EMPLOYERS, OR DESIGNATED REPRESENTATIVES IN ACCORDANCE WITH APPLICABLE PROVISIONS OF PARAGRAPH (I).

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

FLAMMABILITY PROPERTIES:

FLASH POINT [METHOD]: >205 DEG. C (401 DEG. F) [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 ACCUMULATION AND DISSIPATION. DO NOT STORE IN OPEN OR UNLABELLED CONTAINERS. KEEP AWAY FROM INCOMPATIBLE MATERIALS.

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE LIMIT VALUES:

EXPOSURE LIMITS/STANDARDS (NOTE: EXPOSURE LIMITS ARE NOT ADDITIVE):

SUBSTANCE NAME	FORM	LIMIT / STANDARD	NOTE	SOURCE
2,6-DI-TERT-BUTYL-P-CRESOL	INHALEABLE FRACTION AND VAPOR	TWA: 2 MG/M3	N/A	ACGIH

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 (INHALEABLE FRACTION), 5 MG/M3 - OSHA PEL.

### NOTE:

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

NO BIOLOGICAL LIMITS ALLOCATED.

### 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:

COMPLY WITH APPLICABLE ENVIRONMENTAL REGULATIONS LIMITING DISCHARGE TO AIR, WATER AND SOIL. PROTECT THE ENVIRONMENT BY APPLYING APPROPRIATE CONTROL MEASURES TO PREVENT OR LIMIT EMISSIONS.

## 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: BROWN

ODOR: CHARACTERISTIC

ODOR THRESHOLD: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION:

RELATIVE DENSITY (AT 15 DEG. C): 0.883

FLAMMABILITY (SOLID, GAS): N/A

FLASH POINT [METHOD]: >205 DEG. C (401 DEG. F) [ASTM D-92]

FLAMMABLE LIMITS (APPROXIMATE VOLUME % IN AIR):

LEL: 0.9

UEL: 7.0

AUTOIGNITION TEMPERATURE: N/D

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

DECOMPOSITION TEMPERATURE: N/D

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

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

68 CST (68 MM2/SEC) AT 40 DEG. C

8.6 CST (8.6 MM2/SEC) AT 100 DEG. C

OXIDIZING PROPERTIES: SEE HAZARDS IDENTIFICATION SECTION.

### OTHER INFORMATION:

FREEZING POINT: N/D

MELTING POINT: N/A

POUR POINT: -6 DEG. C (21 DEG. F)

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

## SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: SEE SUB-SECTIONS BELOW.

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.

### POSSIBILITY OF HAZARDOUS REACTIONS:

HAZARDOUS POLYMERIZATION WILL NOT OCCUR.

## SECTION 11 TOXICOLOGICAL INFORMATION

### INFORMATION ON TOXICOLOGICAL EFFECTS:

HAZARD CLASS CONCLUSION / REMARKS

#### INHALATION:

ACUTE TOXICITY: NO END POINT DATA FOR MATERIAL. MINIMALLY TOXIC. BASED ON ASSESSMENT OF THE COMPONENTS.

IRRITATION: NO END POINT DATA FOR MATERIAL. NEGLIGIBLE HAZARD AT AMBIENT/NOH HANDLING TEMPERATURES.

#### INGESTION:

ACUTE TOXICITY: NO END POINT DATA FOR MATERIAL. MINIMALLY TOXIC. BASED ON ASSESSMENT OF THE COMPONENTS.

#### SKIN:

ACUTE TOXICITY: NO END POINT DATA FOR MATERIAL. MINIMALLY TOXIC. BASED ON ASSESSMENT OF THE COMPONENTS.

SKIN CORROSION/IRRITATION: NO END POINT DATA FOR MATERIAL. NEGLIGIBLE IRRITATION TO SKIN AT AMBIENT TEMPERATURES. BASED ON ASSESSMENT OF THE COMPONENTS.

#### EYE:

SERIOUS EYE DAMAGE/IRRITATION: NO END POINT DATA FOR MATERIAL. MAY CAUSE MILD, SHORT-LASTING DISCOMFORT TO EYES. BASED ON ASSESSMENT OF THE COMPONENTS.

#### SENSITIZATION:

RESPIRATORY SENSITIZATION: NO END POINT DATA FOR MATERIAL. NOT EXPECTED TO BE A RESPIRATORY SENSITIZER.

SKIN SENSITIZATION:  
NO END POINT DATA FOR MATERIAL.

NOT EXPECTED TO BE A SKIN  
SENSITIZER. BASED ON ASSESSMENT OF  
THE COMPONENTS.

ASPIRATION:  
DATA AVAILABLE.

NOT EXPECTED TO BE AN ASPIRATION  
HAZARD. BASED ON PHYSICO-CHEMICAL  
PROPERTIES OF THE MATERIAL.

GERM CELL MUTAGENICITY:  
NO END POINT DATA FOR MATERIAL.

NOT EXPECTED TO BE A GERM CELL  
MUTAGEN. BASED ON ASSESSMENT OF THE  
COMPONENTS.

CARCINOGENICITY:  
NO END POINT DATA FOR MATERIAL.

NOT EXPECTED TO CAUSE CANCER. BASED  
ON ASSESSMENT OF THE COMPONENTS.

REPRODUCTIVE TOXICITY:  
NO END POINT DATA FOR MATERIAL.

NOT EXPECTED TO BE A REPRODUCTIVE  
TOXICANT. BASED ON ASSESSMENT OF THE  
COMPONENTS.

LACTATION:  
NO END POINT DATA FOR MATERIAL.

NOT EXPECTED TO CAUSE HARM TO  
BREAST-FED CHILDREN.

SPECIFIC TARGET ORGAN TOXICITY (STOT):

SINGLE EXPOSURE:  
NO END POINT DATA FOR MATERIAL.

NOT EXPECTED TO CAUSE ORGAN DAMAGE  
FROM A SINGLE EXPOSURE.

REPEATED EXPOSURE:  
NO END POINT DATA FOR MATERIAL.

NOT EXPECTED TO CAUSE ORGAN DAMAGE  
FROM PROLONGED OR REPEATED EXPOSURE.  
BASED ON ASSESSMENT OF THE  
COMPONENTS.

TOXICITY FOR SUBSTANCES:

NAME

ACUTE TOXICITY

2,6-DI-TERT-BUTYL-P-CRESOL

ORAL LETHALITY:  
LD50: 0.89 G/KG (RAT)

OTHER INFORMATION:

FOR THE PRODUCT ITSELF:  
COMPONENT CONCENTRATIONS IN THIS FORMULATION WOULD NOT BE EXPECTED TO CAUSE  
SKIN SENSITIZATION, BASED ON TESTS OF THE COMPONENTS OR SIMILAR  
FORMULATIONS.

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.

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.

OTHER ECOLOGICAL INFORMATION:

VOC: 1.1 G/L [ASTM E1868-10]

## 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, CORROSIVITY 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 PRESSURIZE, 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

MARINE POLLUTANT: NO

AIR (IATA): NOT REGULATED FOR AIR TRANSPORT

## SECTION 15 REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD:  
THIS MATERIAL IS NOT CONSIDERED HAZARDOUS IN ACCORDANCE WITH OSHA HAZCOM  
2012, 29 CFR 1910.1200.

LISTED OR EXEMPT FROM LISTING/NOTIFICATION ON THE FOLLOWING CHEMICAL  
INVENTORIES: AICS, DSL, ENCS, IBCSC, KECI, PICCS, TSCA

EPCRA SECTION 302:

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: NONE.

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

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (FOR INFORMATION  
ONLY):

H226: FLAMMABLE LIQUID AND VAPOR; FLAMMABLE LIQUID, CAT 3

H302: HARMFUL IF SWALLOWED; ACUTE TOX ORAL, CAT 4

H317: MAY CAUSE ALLERGIC SKIN REACTION; SKIN SENSITIZATION, CAT 1

H318: CAUSES SERIOUS EYE DAMAGE; SERIOUS EYE DAMAGE/IRR, CAT 1

H400: VERY TOXIC TO AQUATIC LIFE; ACUTE ENV TOX, CAT 1

H401: TOXIC TO AQUATIC LIFE; ACUTE ENV TOX, CAT 2

H410:  
VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS; CHRONIC ENV TOX,  
CAT 1

H411:  
TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS; CHRONIC ENV TOX, CAT 2

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:  
UPDATES MADE IN ACCORDANCE WITH IMPLEMENTATION OF GHS REQUIREMENTS.

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE, TO THE BEST OF  
EXXONMOBIL'S KNOWLEDGE AND BELIEF, ACCURATE AND RELIABLE AS OF THE DATE  
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