

1FID: 00260474
VER DATE: 1992-07-22

C H E M I S T R I DATE: 10/22/02
MATERIAL SAFETY DATA SHEET TIME: 19:02:04
PAGE: 0001

SECTION 01: CHEMICAL PRODUCT & COMPANY ID

PRODUCT PRIMARY NAME: IMP 4692 (OBSOLETE)
ALL SYNONYMS : EHPS FLUID
ELECTRO-HYDRAULIC POWER STEERING FLUID
HM 7610
IMP 4692 (OBSOLETE)
IMP 4692 EHPS FLUID
OBSOLETE PRODUCT
SAG 5474
27002509
9985931

MSDS SIGNED BY NAME: LUBRICANTS AND SPECIALTIES IMPERIAL OIL

SAFE USE CATEGORY AND DESCRIPTION: 04 -METAL WORKING FLUIDS AND LUBRICANTS

LAST UPDATED DATE: 1996-01-05

MANUFACTURER'S ID (MID): 000513156
MANUFACTURER'S NAME: IMPERIAL OIL PRODUCTS DIVISION
MANUFACTURER'S EMERGENCY PHONE NUMBER/TEXT: CA 519-339-2145
MANUFACTURER'S MAILING ADDRESS:
111 ST. CLAIR AVENUE WEST
TORONTO ON M5W1K3
CA

CHEMICAL FAMILY NAME: SYNTHETIC BASED LUBRICANT AND ADDITIVES.

SECTION 02: COMPOSITION & INGREDIENT INFO

| CAS# | FORMULATION | W/V | CHEMICAL NAME |
|-----------|--------------------|-----|--|
| 064741884 | R 3.0000/ 6.0000% | V | MINERAL OIL, PETROLEUM DISTILLATES , SOLVENT-REFINED (severe) HEAVY P ARAFFINIC |
| 068037014 | > 75.0000/ 0.0000% | V | 1-Decene, homopolymer, hydrogenate d |
| 068171506 | R 7.0000/ 14.0000% | V | 2-Propenoic acid, 2-methyl-, dodec yl ester, polymer with methyl 2-me thyl-2-propenoate and tetradecyl 2 -methyl-2-propenoate |
| 068515504 | R 1.0000/ 2.0000% | V | 1,2-Benzenedicarboxylic acid, dihe xyl ester, branched and linear |

SECTION 2 - OTHER INFORMATION: OCCUPATIONAL EXPOSURE LIMIT:
MANUFACTURER RECOMMENDED: AT PRESENT, NO EXPOSURE LIMIT APPLIES TO
SYNTHETIC HYDROCARBONS. HOWEVER, GOOD MANUFACTURING PRACTICES SHOULD
EMPHASIZE EXPOSURE AVOIDANCE. LOCAL REGULATED LIMITS MAY VARY.

SECTION 03: HAZARDS IDENTIFICATION

EFFECTS OF OVEREXPOSURE: NATURE OF HAZARD: INHALATION: NEGLIGIBLE HAZARD AT NORMAL TEMPERATURES (UP TO 38C). ELEVATED TEMPERATURES OR MECHANICAL ACTION MAY FORM VAPORS, MISTS OR FUMES WHICH MAY BE IRRITATING TO THE EYES, NOSE, THROAT AND LUNGS. AVOID BREATHING VAPORS OR MIST. EYE CONTACT: SLIGHTLY IRRITATING, BUT WILL NOT INJURE EYE TISSUES. SKIN CONTACT: LOW TOXICITY. FREQUENT OR PROLONGED CONTACT MAY IRRITATE THE SKIN. INGESTION: LOW TOXICITY. SMALL AMOUNTS OF THIS LIQUID DRAWN INTO THE LUNGS FROM SWALLOWING OR VOMITING MAY CAUSE SEVERE HEALTH EFFECTS (E.G. BRONCHOPNEUMONIA OR PULMONARY EDEMA).

SECTION 04: FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURES - SKIN: FLUSH WITH LARGE AMOUNTS OF WATER. USE SOAP IF AVAILABLE. REMOVE SEVERLY CONTAMINATED CLOTHING (INCLUDING SHOES) AND LAUNDRER BEFORE REUSE. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

EMERGENCY FIRST AID PROCEDURES - EYES: FLUSH EYES WITH LARGE AMOUNTS OF WATER UNTIL IRRITATION SUBSIDES. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION.

EMERGENCY FIRST AID PROCEDURES - INHALATION: VAPOR PRESSURE OF THIS MATERIAL IS LOW AND AS SUCH INHALATION UNDER NORMAL CONDITIONS IS USUALLY NOT A PROBLEM. IF OVEREXPOSED TO OIL MIST, REMOVE FROM FURTHER EXPOSURE. ADMINISTER ARTIFICIAL RESPIRATION IF BREATHING HAS STOPPED. KEEP AT REST. CALL FOR PROMPT MEDICAL ATTENTION.

EMERGENCY FIRST AID PROCEDURES - INGESTION: DO NOT INDUCE VOMITING SINCE IT IS IMPORTANT THAT NO AMOUNT OF THE MATERIAL SHOULD ENTER THE LUNGS (ASPIRATION). KEEP AT REST. GET PROMPT MEDICAL ATTENTION.

SECTION 05: FIRE-FIGHTING MEASURES

FLAMMABLE LEL: NA 0.00
FLAMMABLE UEL: NA 0.00

EXTINGUISHING MEDIA: USE FOAM, DRY CHEMICAL OR WATER SPRAY TO EXTINGUISH FIRE.

SPECIAL FIRE FIGHTING PROCEDURES: USE WATER SPRAY TO COOL FIRE EXPOSED SURFACES AND TO PROTECT PERSONNEL. SHUT OFF FUEL TO FIRE. RESPIRATORY AND EYE PROTECTION REQUIRED FOR FIRE FIGHTING PERSONNEL. AVOID SPRAYING WATER DIRECTLY INTO STORAGE CONTAINERS DUE TO DANGER OF BOILOVER. A SELF-CONTAINED BREATHING APPARATUS (SCBA) SHOULD BE USED FOR ALL INDOOR FIRES AND ANY SIGNIFICANT OUTDOOR FIRES. FOR SMALL OUTDOOR FIRES, WHICH MAY EASILY BE EXTINGUISHED WITH A PORTABLE FIRE EXTINGUISHER, USE OF AN SCBA MAY NOT BE REQUIRED.

UNUSUAL FIRE AND EXPLOSION HAZARDS: LOW HAZARD; LIQUIDS MAY BURN UPON HANDLING TO TEMPERATURES AT OR ABOVE THE FLASH POINT. TOXIC GASES WILL FORM UPON COMBUSTION.

NFPA CODES:

NFPA FLAMMABILITY CODE =

0

NFPA HEALTH CODE =

2

NFPA REACTIVITY CODE =

1

AUTO-IGNITION TEMPS: NA

FLASH POINT TEXT: >160C COC D92

SECTION 06: ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: LAND SPILL: ELIMINATE SOURCE OF IGNITION. KEEP PUBLIC AWAY. PREVENT ADDITIONAL DISCHARGE OF MATERIAL, IF POSSIBLE TO DO SO WITHOUT HAZARD. PREVENT SPILLS FROM ENTERING SEWERS, WATERCOURSES OR LOW AREAS. CONTAIN SPILLED LIQUID WITH SAND OR EARTH. RECOVER BY PUMPING OR BY USING A SUITABLE ABSORBANT. CONSULT AN EXPERT ON DISPOSAL OF RECOVERED MATERIAL. ENSURE DISPOSAL IN COMPLIANCE WITH GOVERNMENT REQUIREMENTS AND ENSURE CONFORMITY TO LOCAL DISPOSAL REGULATIONS. NOTIFY THE APPROPRIATE AUTHORITIES IMMEDIATELY. TAKE ALL ADDITIONAL ACTION NECESSARY TO PREVENT AND REMEDY THE ADVERSE EFFECTS OF THE SPILL. WATER SPILL: REMOVE FROM SURFACE BY SKIMMING OR WITH SUITABLE ABSORBENTS. IF ALLOWED BY LOCAL AUTHORITIES AND ENVIRONMENTAL AGENCIES, SINKING AND/OR SUITABLE DISPERSANTS MAY BE USED IN UNCONFINED WATERS. CONSULT AN EXPERT ON DISPOSAL OF RECOVERED MATERIAL. ENSURE DISPOSAL IN COMPLIANCE WITH GOVERNMENT REQUIREMENTS AND ENSURE CONFORMITY TO LOCAL DISPOSAL REGULATIONS. NOTIFY THE APPROPRIATE AUTHORITIES IMMEDIATELY. TAKE ALL ADDITIONAL ACTION NECESSARY TO PREVENT AND REMEDY THE ADVERSE EFFECTS OF THE SPILL.

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: KEEP CONTAINERS CLOSED. HANDLE AND OPEN CONTAINERS WITH CARE. STORE IN A COOL, WELL VENTILATED PLACE AWAY FROM INCOMPATIBLE MATERIALS. IN KEEPING WITH GOOD PERSONAL HYGIENE PRACTICES, WASH HANDS THOROUGHLY AFTER HANDLING THE MATERIAL. DO NOT BREATHE GAS, VAPOR OR MIST. DO NOT HANDLE OR STORE NEAR AN OPEN FLAME, SOURCES OF HEAT, OR SOURCES OF IGNITION. EMPTY CONTAINERS MAY CONTAIN PRODUCT RESIDUE. DO NOT PRESSURIZE, CUT, HEAT, OR WELD EMPTY CONTAINERS. DO NOT REUSE EMPTY CONTAINERS WITHOUT COMMERCIAL CLEANING OR RECONDITIONING.

SECTION 08: EXPOSURE CONTROLS - PROTECTION

RESPIRATORY PROTECTION: WHERE CONCENTRATIONS IN AIR MAY EXCEED THE OCCUPATIONAL EXPOSURE LIMITS GIVEN IN SECTION 2 AND WHERE ENGINEERING, WORK PRACTICES OR OTHER MEANS OF EXPOSURE REDUCTION ARE NOT ADEQUATE, APPROVED RESPIRATORS MAY BE NECESSARY TO PREVENT OVEREXPOSURE BY INHALATION.

PERSONAL PROTECTIVE EQUIPMENT: THE SELECTION OF PERSONAL PROTECTIVE EQUIPMENT VARIES, DEPENDING UPON CONDITIONS OF USE. WHERE PROLONGED AND/OR REPEATED SKIN AND EYE CONTACT IS LIKELY TO OCCUR, WEAR SAFETY GLASSES WITH SIDE SHIELDS, LONG SLEEVES, AND CHEMICAL RESISTANT GLOVES. WHERE EYE CONTACT IS UNLIKELY, BUT MAY OCCUR AS A RESULT OF SHORT AND/OR PERIODIC EXPOSURES, WEAR SAFETY GLASSES WITH SIDE SHIELDS.

ENGINEERING CONTROLS: THE USE OF MECHANICAL DILUTION VENTILATION IS RECOMMENDED TO MAINTAIN AIRBORNE CONCENTRATIONS BELOW THE RECOMMENDED OCCUPATIONAL EXPOSURE LIMITS, WHENEVER THIS MATERIAL IS USED IN A CONFINED SPACE, IS HEATED ABOVE NORMAL TEMPERATURES (UP TO 38C) OR IS AGITATED.

SECTION 09: PHYSICAL & CHEMICAL PROPERTIES

BOILING POINT TEMPS: = 400.00C

MELTING/FREEZE POINT TEMPS: = - 60.00C
MELTING/FREEZE POINT TEXT: D97

POUR POINT TEMPS: = - 60.00C
SPECIFIC GRAVITY VALUES: = 0.8900

DENSITY VALUES/UOM: = 0.8900G/CC

VAPOR DENSITY VALUES: NAV
VAPOR PRESSURE VALUES/UOM: < 1.0000
VAPOR PRESSURE TEXT: KPA @ 38C

EVAPORATION RATE VALUES: < 0.10
EVAPORATION RATE TEXT: (1 = N-BUTYL ACETATE)

SOLUBILITY IN WATER TEXT: NEGLIGIBLE

APPEARANCE: PALE AMBER

ODOR: PETROLEUM

VISCOSITY TEXT: 3.00 CST @ 100C TO 20.00 CST @ 100C.

PHYSICAL STATE: LIQ

SECTION 9 - OTHER INFORMATION: ODOR THRESHOLD: NOT AVAILABLE

SECTION 10: STABILITY & REACTIVITY

STABILITY INDICATOR: Y

INCOMPATIBLE MATERIALS: STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: NONE; HAZARDOUS COMBUSTION PRODUCTS:
SMOKE, CARBON MONOXIDE, CARBON DIOXIDE AND TRACES OF OXIDES OF SULFUR.

HAZARDOUS POLYMERIZATION INDICATOR: N

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA UNLIMITED TEXT: BASED ON ANIMAL TESTING DATA FROM SIMILAR MATERIALS AND PRODUCTS, THE ACUTE TOXICITY OF THIS PRODUCT IS EXPECTED TO BE: ORAL LD50 > 5000 MG/KG (RAT); DERMAL LD50 > 3160 MG/KG

(RABBIT); AND INHALATION LC50 > 5000 MG/M3 (RAT).

CARCINOGENICITY: THIS MATERIAL IS NOT KNOWN TO CONTAIN ANY CHEMICAL LISTED AS A CARCINOGEN OR SUSPECTED CARCINOGEN BY U.S. OSHA, IARC OR THE U.S. NATIONAL TOXICOLOGY PROGRAM (NTP) AT A CONCENTRATION GREATER THAN 0.1%.

SECTION 14: TRANSPORT INFORMATION

SECTION 14 - OTHER INFORMATION: TRANSPORTATION OF DANGEROUS GOODS INFORMATION: SHIPPING NAME: PETROLEUM LUBRICATING OIL. CLASS: NOT APPLICABLE. PACKING GROUP: NOT APPLICABLE. PIN NUMBER: NOT APPLICABLE. GUIDE NUMBER: 129.

SECTION 15: REGULATORY INFORMATION

SECTION 15 - OTHER INFORMATION: WHMIS: NOT A CONTROLLED PRODUCT. PLEASE BE AWARE THAT OTHER REGULATIONS MAY APPLY.