

MOBIL OIL -- MOBIL VACTRA OIL NO. 2 - WAY OIL  
MATERIAL SAFETY DATA SHEET  
NSN: 9150000454317  
Manufacturer's CAGE: 6G112  
Part No. Indicator: A  
Part Number/Trade Name: MOBIL VACTRA OIL NO. 2

HAAS  
Relativity oil

## General Information

Item Name: WAY OIL  
Company's Name: MOBIL OIL CORPORATION  
Company's Street: 3225 GALLOWS ROAD  
Company's City: FAIRFAX  
Company's State: VA  
Company's Zip Code: 22037  
Company's Emerg Ph #: (800) 662-4525  
Company's Info Ph #: (800) 662-4525  
Record No. For Safety Entry: 004  
Tot Safety Entries This Stk#: 007  
Status: A  
Date MSDS Prepared: 29JUN94  
Safety Data Review Date: 20DEC95  
Preparer's Company: MOBIL OIL CORPORATION  
Preparer's St Or P. O. Box: 3225 GALLOWS ROAD  
Preparer's City: FAIRFAX  
Preparer's State: VA  
Preparer's Zip Code: 22037  
MSDS Serial Number: BBLMQ

## Ingredients/Identity Information

Proprietary: NO  
Ingredient: 9-OCTADECEN-1-AMINE, (Z) (OLEYL AMINE) \*95-4\*  
Ingredient Sequence Number: 01  
NIOSH (RTECS) Number: RG4130000  
CAS Number: 112-90-3

Proprietary: NO  
Ingredient: ANIMAL FATTY OIL \*95-4\*  
Ingredient Sequence Number: 02  
NIOSH (RTECS) Number: 1003765AF  
CAS Number: 8016-28-2

Proprietary: NO  
Ingredient: VOLATILE ORGANIC CONTENT: <4 (WT.%); (0.295 LBS/GAL)  
Ingredient Sequence Number: 03  
NIOSH (RTECS) Number: 9999999VO  
CAS Number: 64741-88-4

## Physical/Chemical Characteristics

Appearance And Odor: BROWN LIQUID W/MILD ODOR  
Boiling Point: >600F  
Vapor Pressure (MM Hg/70 F): <0.1  
Solubility In Water: NEGLIGIBLE

## Fire and Explosion Hazard Data

Flash Point: >350F  
Flash Point Method: COC

Lower Explosive Limit: 0.6  
Upper Explosive Limit: 7  
Extinguishing Media: CO2, FOAM, DRY CHEMICAL & WATER FOG.  
Special Fire Fighting Proc: WATER/FOAM MAY CAUSE PROTHING. USE WATER TO  
KEEP FIRE EXPOSED CONTAINERS COOL. WATER SPRAY MAY BE USED TO FLUSH SPILL  
FROM EXPOSURE. WEAR SCBA IN ENCLOSED AREA.

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Reactivity Data

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Stability: YES  
Cond To Avoid (Stability): EXTREME HEAT  
Materials To Avoid: STRONG OXIDIZERS  
Hazardous Decomp Products: PHOSPHORUS OXIDES, SULFUR OXIDES, & CO.  
Hazardous Poly Occur: NO

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Health Hazard Data

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LD50-LC50 Mixture: ORAL DL50(RATS): >2000 MG/KG  
Route Of Entry - Inhalation: NO  
Route Of Entry - Skin: NO  
Route Of Entry - Ingestion: NO  
Health Haz Acute And Chronic: PRACTICALLY NON-TOXIC. NO SIGNIFICANT  
EFFECTS EXPECTED.  
Carcinogenicity - NTP: NO  
Carcinogenicity - IARC: NO  
Carcinogenicity - OSHA: NO  
Explanation Carcinogenicity: NONE  
Signs/Symptoms Of Overexp: PRACTICALLY NON-TOXIC. NO SIGNIFICANT EFFECTS  
EXPECTED.  
Emergency/First Aid Proc: EYES: FLUSH THOROUGHLY W/WATER. SKIN: WASH  
W/SOAP & WATER. INHALATION: REMOVE FROM EXPOSURE. IF BREATHING HAS STOPPED,  
USE MOUTH TO MOUTH RESUSCITATION. OBTAIN MEDICAL ATTENTION IN ALL CASES.

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Precautions for Safe Handling and Use

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Steps If Matl Released/Spill: ABSORB ON FIRE RETARDANT TREATED SAWDUST,  
DIATOMACEOUS EARTH. SHOVEL UP & DISPOSE.  
Waste Disposal Method: PRODUCT IS SUITABLE FOR BURNING IN AN ENCLOSED,  
CONTROLLED BURNER FOR FUEL VALUE/DISPOSAL BY SUPERVISED INCINERATION.  
BURNING MAY BE LIMITED PURSUANT TO THE RCRA. DISPOSE OF AT AN APPROVED  
WASTE DISPOSAL FACILITY IAW/LOCAL, STATE & FEDERAL REGULATION

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Control Measures

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Respiratory Protection: NONE REQUIRED IF USED W/ADEQUATE VENTILATION  
Ventilation: USE IN WELL VENTILATED AREA.  
Protective Gloves: NO SPECIAL EQUIPMENT REQUIRED  
Eye Protection: NORMAL INDUSTRIAL PROTECTION EMPLOYED  
Work Hygienic Practices: GOOD PERSONAL HYGIENE PRACTICES SHOULD ALWAYS BE  
FOLLOWED.  
Suppl. Safety & Health Data: FIRE PROC CONT'D: PREVENT RUNOFF FROM FIRE  
CONTROL/DILUTION FROM ENTERING STREAMS, SEWERS/DRINKING WATER SUPPLY.

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Transportation Data

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Disposal Data

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Disposal Data Action Code: A  
Disposal Data Review Date: 90036

Rec # For This Disp Entry: 01  
Tot Disp Entries Per NSN: 001  
Landfill Ban Item: YES  
Disposal Supplemental Data: 150 E. 42ND/NEW YORK CITY, NY 10017. IN CASE  
OF ACCIDENTAL EXPOSURE OR DISCHARGE, CONSULT HEALTH AND SAFETY FILE FOR  
PRECAUTIONS.  
1st EPA Haz Wst Name New: NOT REGULATED  
1st EPA Haz Wst Char New: NOT REGULATED BY RCRA  
1st EPA Acute Hazard New: NO

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Label Data

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Label Required: YES  
Technical Review Date: 31OCT90  
Label Status: F  
Common Name: MOBIL VACTRA OIL NO. 2  
Chronic Hazard: NO  
Signal Word: CAUTION!  
Acute Health Hazard-Slight: X  
Contact Hazard-Slight: X  
Fire Hazard-Slight: X  
Reactivity Hazard-None: X  
Special Hazard Precautions: COMBUSTIBLE.. CONTAINS REFINED PETROLEUM BASE  
AND/OR SYNTHETIC HYDROCARBON OIL WITH ADDITIVES. REPEATED/PROLONGED CONTACT  
MAY CAUSE IRRITATION OR OIL ACNE TO EYE/SKIN. INHALATION OF MIST MAY CAUSE  
RESPIRATORY TRACT IRRITATION, POSSIBLE PULMONARY EDEMA OR OTHER PROBLEMS.  
FLUSH WITH PLENTY OF WATER. REMOVE AND LAUNDER CONTAMINATED CLOTHING; WASH  
SKIN WITH SOAP AND WATER AFTER EACH USE/HANDLING. AVOID SKIN CONTACT AND  
INHALATION OF MIST. GET MED HELP FOR ANY SYMPTOM. KEEP AWAY FROM HEAT/OPEN  
FLAMES. DO NOT CONTAMINATE WATERWAYS. ABSORB SPILL WITH AN ABSORBENT.  
Protect Eye: Y  
Protect Skin: Y  
Label Name: MOBIL OIL CORP  
Label Street: 150 E 42ND ST  
Label City: NEW YORK  
Label State: NY  
Label Zip Code: 10017-5612  
Label Country: US  
Label Emergency Number: 212-883-4411

**MOBIL**

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## MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED 12/30/92

## \*\*\*\*\* I. PRODUCT IDENTIFICATION \*\*\*\*\*

SUPPLIER: MOBIL OIL CORP. 24-HOUR EMERGENCY (CALL COLLECT):  
(609) 737-4411  
CHEMICAL NAMES AND SYNONYMS: CHEMTREC:  
PET. HYDROCARBONS AND ADDITIVES (800) 424-9300  
USE OR DESCRIPTION: PRODUCT AND MSDS INFORMATION:  
HYDRAULIC OIL (800) 662-4525

## \*\*\*\*\* II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES \*\*\*\*\*

APPEARANCE: Dark Amber Liquid ODOR: Mild PH: NA  
VISCOSITY AT 40 C, CS: > 44.0  
VISCOSITY AT 100 C, CS: 6.6  
FLASH POINT F(G): > 395(202) (ASTM D-92)  
MELTING POINT F(C): NA POUR POINT F(C): -10(-23)  
BOILING POINT F(C): > 600(316) VOC: < 3.00(Wt. %); 0.221 lbs/gal  
RELATIVE DENSITY, 15/4 C: 0.885 SOLUBILITY IN WATER: Negligible  
VAPOR PRESSURE-mm Hg 20C: < .1

NA=Not Applicable NE=Not Established D=Decomposes  
FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

## \*\*\*\*\* III. POTENTIALLY HAZARDOUS INGREDIENTS \*\*\*\*\*

None

SEE SECTIONS XII AND XIII FOR REGULATORY AND FURTHER COMPOSITIONAL DATA.

## \*\*\*\*\* IV. HEALTH HAZARD DATA \*\*\*\*\*

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---  
THRESHOLD LIMIT VALUE: 5.00 mg/m3 Suggested for Oil Mist  
EFFECTS OF OVEREXPOSURE: Slight skin irritation.

## \*\*\*\*\* V. EMERGENCY AND FIRST AID PROCEDURES \*\*\*\*\*

--- FOR PRIMARY ROUTES OF ENTRY ---  
EYE CONTACT: Flush thoroughly with water. If irritation persists, call a physician.  
SKIN CONTACT: Wash contact areas with soap and water. High pressure accidental injection through the skin requires immediate medical attention for possible incision, irrigation and/or debridement.  
INHALATION: Not expected to be a problem.  
INGESTION: Not expected to be a problem when ingested. If uncomfortable seek medical assistance.

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## \*\*\*\*\* VI. FIRE AND EXPLOSION HAZARD DATA \*\*\*\*\*

FLASH POINT F(C): &gt; 395(202) (ASTM D-92)

FLAMMABLE LIMITS. LEL: .6% UEL: 7.0%

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing.

Use water to keep fire exposed containers cool. Water spray may be

used to flush spills away from exposure. For fires in enclosed

areas, firefighters must use self-contained breathing apparatus.

Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

## \*\*\*\*\* VII. REACTIVITY DATA \*\*\*\*\*

STABILITY (Thermal, Light, etc.): Stable

CONDITIONS TO AVOID: Extreme heat.

INCOMPATIBILITY (Materials to Avoid): Strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide.

HAZARDOUS POLYMERIZATION: Will not occur.

## \*\*\*\*\* VIII. SPILL OR LEAK PROCEDURE \*\*\*\*\*

ENVIRONMENTAL IMPACT: Report spills as required to appropriate

authorities. U. S. Coast Guard regulations require immediate

reporting of spills that could reach any waterway including

intermittent dry creeks. Report spill to Coast Guard toll free

number (800) 424-8802. In case of accident or road spill notify

CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

WASTE MANAGEMENT: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

## \*\*\*\*\* IX. SPECIAL PROTECTION INFORMATION \*\*\*\*\*

EYE PROTECTION: Normal industrial eye protection practices should be employed.

SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.

RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.

VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.

## \*\*\*\*\* X. SPECIAL PRECAUTIONS \*\*\*\*\*

No special precautions required.

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## \*\*\*\*\* XI. TOXICOLOGICAL DATA \*\*\*\*\*

## ---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Nontoxic ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Nontoxic ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Not applicable ---Harmful concentrations of mists and/or vapors are unlikely to be encountered through any customary or reasonably foreseeable handling, use, or misuse of this product.

EYE IRRITATION (RABBITS): Expected to be non-irritating. ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): May cause slight irritation on prolonged or repeated contact. ---Based on testing of similar products and/or the components.

## ---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Severely solvent refined and severely hydrotreated mineral base oils have been tested at Mobil Environmental and Health Sciences Laboratory by dermal application to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

## ---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of similar oils showed no evidence of carcinogenic effects.

## \*\*\*\*\* XII. REGULATORY INFORMATION \*\*\*\*\*

GOVERNMENTAL INVENTORY STATUS: All components registered in accordance with TSCA and EINECS.

Transport Information:

DOT:

Shipping Name: Not applicable

Hazard Class: Not applicable

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.

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 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.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III: This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312 -- FORMERLY 302) REPORTABLE HAZARD CATEGORIES: None

This product contains no chemicals reportable under SARA (313) toxic release program.

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THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
ZINC DITHIOPHOSPHATE (.70%)		22
ZINC (ELEMENTAL ANALYSIS) (.09%)	7440-66-6	22

## --- REGULATORY LISTS SEARCHED ---

1 = ACGIH ALL	6 = IARC 1	11 = TSCA 4	17 = CA P65	22 = MI 293
2 = ACGIH A1	7 = IARC 2A	12 = TSCA 5a2	18 = CA RTK	23 = MN RTK
3 = ACGIH A2	8 = IARC 2B	13 = TSCA 5e	19 = FL RTK	24 = NJ RTK
4 = NTP CARC	9 = OSHA CARC	14 = TSCA 6	20 = IL RTK	25 = PA RTK
5 = NTP SUS	10 = OSHA 2	15 = TSCA 12b	21 = LA RTK	26 = RI RTK
		16 = WEMIS		

CARC = CARCINOGEN; SUS = SUSPECTED CARCINOGEN

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

## \*\*\*\*\* XIII. INGREDIENTS \*\*\*\*\*

INGREDIENT DESCRIPTION	PERCENT	CAS NUMBER
CONTAINS ONE OR MORE OF THE FOLLOWING	> 95.00	

## BASE OILS:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7
DISTILLATES (PETROLEUM), SOLVENT- DEWAXED HEAVY PARAFFINIC	64742-65-0

## MAY CONTAIN THE FOLLOWING ADDITIVE COMPONENT:

PHOSPHORODITHIOIC ACID, MIXED O,O-	0.63	68988-46-5
BIS(ISO-BU AND ISOCTYL AND PENTYL) ESTERS, ZINC SALTS		

## \*\*\*\*\* APPENDIX \*\*\*\*\*

FOR MOBIL USE ONLY; MHC: 0\* 0\* NA 0\* 1\*, MPPEC: A, PPEC: , US92-758  
APPROVE CCODE:3 10/08/92 REQ: US - MARKETING

## \*\*\*\*\*

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

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PREPARED BY: MOBIL OIL CORPORATION

ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT, PRINCETON, NJ

FOR FURTHER INFORMATION, CONTACT:

MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL  
3225 GALLONS ROAD, FAIRFAX, VA 22037 (800) 227-0707 X3265