

MATERIAL SAFETY DATA SHEET

Armor Plate with Moly-D Ultragard® 480M

Last Updated July 24, 2012

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Armor Plate with Moly-D Ultragard® 480M**

Company Identification: **Primrose Oil Company, Inc.**

www.primrose.com

11444 Denton Drive

P.O. Box 29665

Dallas, Texas 75229 USA

1-972-241-1100 (For product information)

1-800-633-8253 (For Emergencies Only)

Notice: This mixture contains a toxic chemical subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372: Organic Solvent, CAS# 71-36-3, <10%

2. COMPOSITION / INFORMATION ON INGREDIENTS

CONTAINING: HAZARDOUS AND/OR REGULATED COMPONENTS

<u>Chemical Name</u>	<u>Amount</u>	<u>CAS Number</u>	<u>OSHA PEL (TWA)</u>	<u>ACGIH TWA</u>
Mineral Oil	<95%	Mixture	5 mg/m ³	5 mg/m ³
Proprietary Additives	<5%	Proprietary	Not Listed	Not Listed
Organic Solvent	<10%	71-36-3	50 ppm	20 ppm

Balance of above ingredients are non-hazardous or hazardous in less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).

CALIFORNIA PROP 65: This product does not contain an ingredient(s), above the safe harbor limits, which are known to the state of California to cause cancer, birth defects, or other reproductive harm.

HAZARDS DISCLOSURE: This product does contain known hazardous materials in reportable levels as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200. As defined under Sara 311 and 312, this product contains known hazardous materials.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING! HARMFUL IF INHALED. PROLONGED EXPOSURE MAY CAUSE IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

HMIS/NFPA Rating: See Section 16

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: Skin. Eyes, Inhalation, Ingestion.

TARGET ORGANS: Skin. Respiratory System

INHALATION: Causes irritation to the nose and throat. Concentrations above the TLV may cause headache, dizziness, nausea, or shortness of breath.

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INGESTION: Not expected to be a normal route of entry. Ingestion of small amounts may produce mild gastrointestinal irritation.

SKIN CONTACT: Prolonged contact with skin may cause irritation. Symptoms include redness, itching, and pain.

EYE CONTACT: Vapors can irritate the eyes. Splashes cause pain and irritation.

CHRONIC EXPOSURE: None known.

AGGRAVATION OF PRE-EXISTING CONDITIONS: Persons with pre-existing eye, skin disorders or impaired respiratory function may be more susceptible to the effects of the substance.

4. FIRST AID MEASURES

INHALATION FIRST AID: If breathing difficulty develops, remove victim to fresh air. Provide oxygen if breathing continues to be difficult. If not breathing, give artificial respiration, preferably mouth to mouth. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT FIRST AID: If contact occurs wash skin with plenty of soap and water. Remove contaminated clothing. Wash clothing before reuse. GET MEDICAL ATTENTION IF IRRITATION OCCURRS.

EYE CONTACT FIRST AID: If contact with eyes, immediately flush eyes with plenty of water for at least 15 minutes lifting upper and lower eyelids occasionally. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION FIRST AID: Induce vomiting ONLY as directed by medical personnel. Never give anything by mouth to an unconscious person. GET MEDICAL ATTENTION IMMEDIATELY.

NOTE TO PHYSICIANS: Treat symptoms.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

AUTO IGNITION TEMPERATURE: >600°F

FLASH POINT: >142°F.

FLAMMABLE LIMITS IN AIR, % by Volume: lel: NE; uel: NE

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, foam. Water spray may be used to keep fire exposed containers cool, dilute spills to non-flammable mixtures.

FIRE & EXPLOSION HAZARDS: Above flash point, vapor air mixtures are explosive within flammable limits noted above. Vapor can flow along surfaces to distant ignition sources and flash back.

SPECIAL INFORMATION:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

SPILL CLEAN-UP PROCEDURES: Evacuate unprotected personnel from the area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in section 8. Contain and recover liquid if possible. Use non-sparking tools and equipment. Cover spilled liquid with sand or earth. Clean up spill immediately and place in appropriate containers. Do not discharge to sewers and surface waters. Notify authorities if entry occurs.

U.S. Regulations (CERCLA) requires reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

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7. HANDLING AND STORAGE

RECOMMENDED STORAGE CONDITIONS: Protect against physical damage. Store in a cool, dry well-ventilated location away from heat or ignition sources. Keep out of direct sunlight. Keep containers tightly closed. Observe all warnings and precautions listed for the product.

HANDLING (PERSONNEL): Handle in accordance with good industrial hygiene and safety practices. Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Avoid breathing vapors or mists. Do not eat, drink or smoke in work area. Wash thoroughly after handling.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS: See Section 2 above.

Mineral Oil:

-OSHA Permissible Exposure Limit (PEL): 5 mg/m³ (TWA)

-ACGIH Threshold Limit Value (TWA): 5 mg/m³

Organic Solvent:

-OSHA Permissible Exposure Limit (PEL): 50 ppm (TWA)

-ACGIH Threshold Limit Value (TWA): 20 ppm

VENTILATION SYSTEM: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

PERSONAL RESPIRATORS (NIOSH APPROVED): If the exposure limit is exceeded and engineering controls are not feasible, a respirator may be required. Where respirators are required, you must have a written program covering the basic requirements in the OSHA respirator standard. These include training, fit testing, medical approval, cleaning, maintenance, cartridge change schedules, etc. See 29CFR1910.134 for details.

SKIN PROTECTION: Wear protective clothing, gloves, as appropriate.

EYE PROTECTION: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

GOOD HYGIENE CONDITIONS: Wash with soap and water before meals and at the end of each work shift. Good manufacturing practices require amounts of any chemical be removed from the skin as soon as practical, especially before eating or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid

ODOR: Strong Odor

SOLUBILITY IN WATER: Partial

MELTING POINT: NA

AUTO IGNITION TEMPERATURE: NE

pH: NE

VAPOR DENSITY: No Data

COLOR: Green

BOILING POINT: NE

SPECIFIC GRAVITY: 0.9 (Water =1)

EVAPORATION RATE (BuAc=1): NE

FLASH POINT: >142°F

VAPOR PRESSURE: No Data

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10. STABILITY AND REACTIVITY

STABILITY: Stable under ordinary conditions of use and storage.

CONDITIONS TO AVOID: Heat, flame ignition sources and strong oxidizers.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizers.

HAZARDOUS DECOMPOSITION: Carbon monoxide and asphyxiants.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA:

Acute oral toxicity: – LD50 Rat: 5 gm/kg
Moderate skin and eye irritant.

Carcinogenic effects: Not available.

Mutagenic effects: Not available.

Teratogenic effects: Not available.

Cancer Lists

---NTP Carcinogen---

Ingredient

Known

Anticipated

IARC Category

All ingredients

No

No

None

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:

If applied to leaves, this product may kill grasses and small plants by interfering with transpiration and respiration. This product is not toxic to fish but may coat gill structures resulting in suffocation if spilled in shallow, running water. Product may be moderately toxic to amphibians by preventing dermal respiration. This product may cause gastrointestinal distress in birds and mammals through ingestion during pelage grooming.

ENVIRONMENTAL TOXICITY:

This product is rapidly biodegradable. Biodegradation is possible within 90 to 120 days in aerobic environments at temperatures above 70°F.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Recover, reclaim or recycle when practical.

Dispose of material in accordance with federal, state and local requirements. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permitted under applicable rules, regulations and/or laws governing your location.

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14. TRANSPORTATION INFORMATION

Domestic (Land, D.O.T.), International (Water, I.M.O.), International (Air, I.C.A.O.)

D.O.T. (USA) – Non-bulk containers, less than/equal to:

119 Gallons/450L, shipped road or rail are non-regulated

CLASS: 3
PRODUCT LABEL: **Armor Plate with Moly-D Ultragard® 480M**
UN NUMBER: UN1993
PACKING GROUP: III
D.O.T. SHIPPING NAME: Combustible Liquid, N.O.S.
PRODUCT RQ : 20L Passenger Aircraft, 220L Cargo Aircraft.
ERG Guide Number: 128
SUPPLEMENTAL HAZARD: None

15. REGULATORY INFORMATION

FEDERAL REGULATORY STATUS

Chemical Inventory Status - Part 1

Ingredient	<u>TSCA</u>	<u>EC</u>	<u>Japan</u>	<u>Australia</u>
All Ingredients	YES	YES	YES	YES

Chemical Inventory Status - Part 2

Ingredient	<u>Korea</u>	<u>DSL</u>	<u>CANADA</u>	<u>Phil.</u>
All Ingredients	YES	YES	<u>NDSL</u>	YES

Federal, State & International Regulations - Part 1

Ingredient	<u>-SARA 302-</u>	<u>List</u>	<u>-SARA 313-</u>
All Ingredients	<u>RQ</u> NO	<u>TPQ</u> NO	<u>Chemical Catalog</u> NO

Ingredient	<u>CERCLA</u>	<u>-RCRA-</u>	<u>-TSCA-</u>
All Ingredients	CAS#71-36-3 (5,000LBs)	<u>261.33</u> NO	<u>8(d)</u> NO

This product does have a component(s) which is/are subject to SARA 313 Annual Reporting Requirements:
CAS# 71-36-3 <10%

Chemical Weapons Convention: No **TSCA 12(b):** No **CDTA:** No

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SARA 311/312: Acute: Yes Chronic: No Fire: Yes Pressure: No

Reactivity: No (Pure / Liquid)

STATE REGULATIONS:

PROP 65 - WARNING:

THIS PRODUCT DOES NOT CONTAIN A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

RCRA 40 CFR: None.

CANADIAN REGULATIONS:

WHMIS: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS Classification: Class B-3: Combustible liquid with a flash point between 100°F and 200°F.

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This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA). This material or all of its components are listed on the Canadian Domestic Substances List (DSL). This material or all of its components are listed (or considered as having been notified) on the European Inventory of Existing Chemical Substances (EINECS). Other inventory lists: Korea (TCCL), Australia (AICS), China (Draft), PICCS (Philippines-RA6969), Japan (ENCS METI/MOL).

16. OTHER INFORMATION

Hazardous Material Information System (HMIS):	Health	2
	Flammability	2
	Reactivity	0
	Personal Protection	B

National Fire Protection Association (NFPA) 2-Health, 2-Flammability, 0-Reactivity

NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

Protective Equipment: GOGGLES & SHIELD; PROPER GLOVES;

Part Number: 480M
Supersedes Date: New

ADDITIONAL INFORMATION:

The data in this Material Safety Data Sheet relates only to the specific material designated herein. It does not relate to use in combination with any other material or in any process. This Material Safety Data Sheet (MSDS) has been reviewed to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-2004)

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Primrose Oil Company, Inc. The data on this sheet is related only to the specific material designated herein. Primrose Oil Company, Inc. assumes no legal responsibility for use or reliance upon this data.

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

END OF MSDS