

MARK V LAB

SAFETY MANUAL

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Revision:	1
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Manual:	SM-AAC
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SAFETY DATA SHEET

1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: DS Oil Base Suspension Diamond
Part Number: S81303
Manufacturer: Mark V Laboratory
Address: 18 Kripes Rd.
City, State, Zip: East Granby, CT 06026
Phone Number: 860-653-7201 Emergency Phone: 888-681-5485
Hazardous Spill Response:

2.0 HAZARD IDENTIFICATION

GHS Classification: Hazardous

Flammable Liquid Category 3 – H226
Acute Toxicity Category 3 – H331
Aspiration Toxicity Category 1 – H304

IDLH (Immediate Danger to Life and Health): None

Physical Hazards: Not Classified

Health Hazards:

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Specific Target Organ Toxicity – Lungs: Repeated Exposure Category 1 **Label Elements:**



Flammable



Environmental
Hazard



Aspiration
Hazard

Signal Word: Danger **Hazard**

Statement(s):

H226: Flammable Liquid and Vapour

H304: May be fatal if swallowed and enters airways

H331: Toxic if inhaled

H411: Toxic to aquatic life with long lasting effects.

P210: Keep away from heat, sparks, open flames, hot surfaces. - No smoking

P233: Keep container tightly closed

P240: Ground/bond container and receiving equipment

P243: Take precautionary measures against static discharge

P261: Avoid breathing mist, vapours, spray

P271: Use only outdoors or in a well-ventilated area

P280: Wear protective gloves, protective clothing, eye protection, face protection **Precautionary Response:**

P301+P310; IF SWALLOWED: immediately call a POISON CENTER or doctor/physician

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing

P331 - If swallowed, do NOT induce vomiting

P370+P378: In case of fire: Use carbon dioxide (CO₂), powder, alcohol-resistant foam for extinction

P403+P233: Store in a well-ventilated place. Keep container tightly closed

P403+P235: Store in a well-ventilated place. Keep cool

P501: Dispose of contents/container to comply with local, state and federal regulations

3.0 COMPOSITION & HAZARDOUS INGREDIENTS

The terms "hazardous" and "hazardous materials" as used within this SDS (EU - MSD) should be interpreted as defined by, and accordance with, the OSHA Hazard Communication Standard (29 CFR 1910:1200) and the EU Occupational Exposure Limits (OEL) REGULATION (EC) No 1272/2008 including cited Appendices, Lists, References, etc., all of which are hereby incorporated by reference and stated below as appropriate.

OECD SIDS documents published by UNEP Chemicals in response to its mandate to facilitate the access to information needed for health and environmental risk assessment of chemicals. The documents contain the information gathered and an Initial Assessment performed under the framework of the OECD HPV Chemicals Programme.

Substance	CAS Number	EC Number	Percent by Weight
Petroleum Distillates	64742-47-8	265-149-8	75.0% - 95.0%
Diamond or Aluminum Oxide	7782-40-3 or 1344-28-1	231-953-2 or 215-691-6	0.25% - 5.0%
Proprietary Ingredients	N/A	N/A	5.0% - 55.0%

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Proprietary Non-Hazardous Dye	N/A	N/A	0.0% – 1.0%
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Hazardous Mixtures: None
(See Section 8.0 for Occupational Exposure Limits)

4.0 FIRST AID MEASURES

First-aid measures general :

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

First-aid measures after inhalation:

If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

First-aid measures after skin contact:

Rinse immediately with plenty of water. Gently wash with plenty of soap and water. Obtain medical attention if irritation persists.

First-aid measures after eye contact:

Immediately rinse with water for a prolonged period while holding the eyelids wide open. Seek medical attention if material is embedded in eye. If eye irritation persists: Get medical advice and attention.

First-aid measures after ingestion:

If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Symptoms/injuries:

Repeated or prolonged inhalation may damage lungs.

Symptoms/injuries after inhalation:

May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in

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breathing. Dizziness. Headache. Narcosis.

Symptoms/injuries after skin contact:

Dry Skin. Redness and cracking of the skin.

Symptoms/injuries after eye contact:

Redness, pain.

Symptoms/injuries after ingestion:

Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.

Chronic symptoms:

Respiratory difficulties and lung damage.

5.0 FIRE-FIGHTING MEASURES

Fire Hazard:

Highly Flammable.

Extinguishing Media:

Use BC type fire extinguisher, or Carbon Dioxide in a large area.

Special Firefighting Procedures:

Typical for gasoline or other flammable fuels.

Unusual Fire and Explosion Hazards:

Gas and vapor are explosive with air within explosion limits.

Reactivity:

Upon combustion, CO and CO₂ are formed.

Protective Equipment for Firefighting:

Self-Contained Breathing Apparatus and clothing for chemical fires.

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Protection During Firefighting:	Use normal individual fire protective equipment.
Precautionary Measures Fire:	Exposure to fire / heat: keep upwind. Exposure to fire / heat: consider evacuation. Exposure to fire / heat: seal off low-lying areas. Exposure to fire / heat: have residence shelter in place.

6.0 ACCIDENTAL RELEASE MEASURES

Personal Precautions / Protective Equipment:

Do not touch damaged containers or spilled material unless wearing appropriate protective equipment. Do not breath vapor, gas, fume or spray. Ventilate area or wear SCBA.

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Environmental Precautions: Prevent further leakage or spillage and comply with local, state and federal regulations.

Methods / Materials for Containment & Clean-up:

Mark the danger area. Stop engines and no smoking. No naked flames or sparks. Wash contaminated clothes.

Large Spills: Dike the spilled area. Absorb with vermiculite, dry sand or earth and place into containers. Flush area with water and dispose accordingly. Section 13 of this SDS.

Small Spills: Absorb with vermiculite, dry sand or earth and place into containers. Flush area with water and dispose accordingly.

7.0 HANDLING & STORAGE

Precautions for Safe Handling:

Wear suitable protective clothing and eye/face protection. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid breathing spray or mist.

Conditions for Safe Storage:

Store in original tightly closed container. Keep away from food, drink and animal feeding stuffs. Use care in handling / storage. Take precautions against electrostatic charges. Keep away from open flames / heat. Keep away from ignition sources / sparks. Avoid prolonged and repeated contact with skin. Keep container tightly closed. Measure the concentration in the air regularly. Work under local exhaust / ventilation. Store in accordance with local / regional / national / international regulation. **SUITABLE CONTAINER: stainless steel, carbon steel, polyethylene, polypropylene.**

8.0 EXPOSURE CONTROLS & PERSONAL PROTECTION

Control Parameters

Petroleum Distillates - 64742-47-8 ACGIH TWA

(mg/m³) 200 mg/m³

ACGIH STEL 200 mg/m³

ACGIH TLV 200 mg/m³

3

NIOSH REL (TWA) (mg/m) 100 ppm

3

OSHA PEL (TWA) (mg/m) 100 ppm

(Mist)

IDLH (mg/m³) Not Available

OECD SIDS UNEP TLV Not Available

BAuATRGS 900 Not Available **Aluminum**

Oxide – 1344-28-1

ACGIH TLV 10 mg/m³

OSHA PEL 15 mg/m³ (total dust)

5 mg/m³ (respirable fraction)

TLV: Threshold Limit Value of a chemical substance is a level to which it is believed a worker can be exposed day after day for a working lifetime without adverse health effects.

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TWA: (Time Weighted Average - TLV-TWA): average exposure on the basis of a 8h/day, 40h/week work schedule **STEL:** (Short Term Exposure Level) is an employee's 15-minute time weighted average exposure at any time during a work day and cannot be repeated more than 4 times in a day.

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Personal Protective Equipment: Wear chemical resistant clothing, chemical goggles and chemical resistant gloves while handling under normal conditions.



Respiratory Protection: In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment. Use an appropriate NIOSH approved respirator if airborne fume concentrations exceed the appropriate PEL or TLV. Wear air supplied respiratory protection if exposure concentrations are unknown. All requirements set forth in 29CFR1910.134 must be met.

Protective Gloves: Neoprene and Nitrile gloves are recommended. Be cautious as the liquid may penetrate the glove. Frequent change is advisable.

Ventilation: Use local exhaust ventilation which is adequate to limit personal exposure to airborne fumes to levels which do not exceed the appropriate PEL or TLV. If such equipment is not available, use respiratory protection as specified above.

Eye protection: Chemical / splash goggles are recommended. Eye wash station must be present.

Other Equipment: None

9.0 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Liquid, Slight Mineral Odor
Color:	Varies By Size
Physical State:	Liquid
pH:	Not Available
Viscosity:	150 – 275 cps – Spindle #2 @ 30 RPM
Specific Gravity:	Not Available
Vapor Density:	Not Available
Vapor Pressure:	Not Available

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Melting Point:	Not Applicable
Boiling Point:	185 – 211 C
Flash Point:	>61 C
Freezing Point:	Not Available
Percent Volatility:	NA
Evaporation Rate (baC=1)	<1
Solubility in Water:	Not Soluable
Solubility in Oil:	Not Available
Solubility in Solvents:	Not Available

10.0 STABILITY AND REACTIVITY

Reactivity: Hazardous reaction will not occur under normal conditions.

Stability: This composition is stable under normal conditions.

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Incompatibility (materials to avoid): Strong Oxidizers

Hazardous Decomposition Products: Carbon and Nitrogen Oxides.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Strong oxidizing agents. Heat, flames and sparks. Avoid temperatures exceeding the flash point

11.0 TOXICOLOGICAL INFORMATION

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Petroleum Distillates - 64742-47-8

Acute Toxicity – Oral - LD50 – 5000 mg/
(Rat)

Acute Toxicity – Dermal - LD50 – 5000 m
(Rat)

Acute Toxicity – Inhalation - LD50 – 5.0 mg/kg (4H) (Rat)

Acute Toxicity: Toxic if inhaled

Skin Corrosion / Irritant: Irritating to skin.

Serious Eye Damage / Irritant: Eye Irritant

Respiratory / Skin Sensitisation: Not Classified

Germ Cell Mutagenicity: Not Classified

Carcinogenicity: Not Classified

Reproductive Toxicity: Not Classified

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Target Organ Toxicity (Single Exposure): May cause respiratory / skin irritation.

Target Organ Toxicity (Repeated Exposure): May adversely affect the liver and kidney based on animal testing.

Aspiration Hazard: Toxic if inhaled

Teratogenicity: Avoid contact during pregnancy or while nursing.

12.0 ECOLOGICAL INFORMATION

Petroleum Distillates - 64742-47-8 Aquatic:

Fish – LC50 – Pisces – >1000 mg / L, 96 hours

Fish – EC50 – Amphipoda – >1000 mg / L, 96 hours

Threshold Limit Algae – 100 mg/L, 72 hours

Ecotoxicity: Ground water pollutant. Not harmful to fishes (LC50 (96h) >1000 mg/l). Not harmful to invertebrates (Daphnia). Not harmful to algae (EC50 (72h) >1000 mg/l). Not harmful to aquatic organisms (EC50 >1000 mg/l).

Persistence and Degradability: Readily biodegradable in water.

Bioaccumulative Potential: No information available

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Mobility in Soil: No information available

Other Adverse Effects: Environmental hazards cannot be excluded by inappropriate handling or disposal.

13.0 DISPOSAL CONSIDERATION

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Do not landfill. Incinerate under surveillance with energy recovery. Do not discharge into drains or the environment. Use appropriate containment to avoid environmental contamination.

Dispose in a safe manner in accordance with local, state and federal regulations.

14.0 TRANSPORT INFORMATION

US DOT Classification: 9 – Miscellaneous
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S.
(Distallates (Petroleum), Hydrotreated Light)
UN Number: 3082
Packing Group: III
Label: 9 - Miscellaneous
Reportable Quantity: Not Reportable
Hazard Class: 9 – Environmentally Hazardous

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IMO Classification: 9 – Miscellaneous
IMO PSN Code: IRR
IMO Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S.
(Distallates (Petroleum), Hydrotreated Light)
IMO Regulation Page Number: 3375
IMO UN Number: 3082
IMO UN Class: 9
IATA Classification: 9 – Miscellaneous
IATA PSN Code: OVO

IATA



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Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S.
 (Distillates (Petroleum), Hydrotreated Light)

- IATA UN ID Number:** 3082
- IATA UN Class:** 9
- IATA Label:** Environmentally Hazardous
- DOT Passenger Aircraft Limitations:** 60 L
- DOT Cargo Aircraft Limitations:** 220 L

DOT Special Provisions (49 CFR 172.102):

144 - If transported as a residue in an underground storage tank (UST), as defined in 40 CFR 280.12, that has been cleaned and purged or rendered inert according to the American Petroleum Institute (API) Standard 1604 (IBR, see 171.7 of this subchapter), then the tank and this material are not subject to any other requirements of this subchapter. However, sediments remaining in the tank that meet the definition for a hazardous material are subject to the applicable regulations of this subchapter. B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T2 - 1.5 178.274(d)(2) Normal..... 178.275(d)(3) TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $95 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: $a = (d15 - d50) / 35*d50$ Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

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REGULATORY INFORMATION

U.S. Federal Regulations:

Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA): No reportable quantity for this product.

Toxic Substance Control Act (TSCA):

All of the components of this material are listed on the TSCA Chemical Substances Inventory.

Clean Water Act (CWA):

Listed under sections of the Clean Water Act. CWA Section 1321. Contact your local / state authorities to determine if substances are regulated under their jurisdiction.

Clean Air Act (CAA):

Listed under various sections of the Clean Air Act. Contact your local / state authorities to determine if substances are regulated under their jurisdiction.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

This product contains chemicals subject to annual release reporting requirements Under SARA Title III, Section 313 (40 CFR 372). Fire Hazard.

EUROPEAN / INTERNATIONAL REGULATIONS:

Control of Substances Hazardous to Health (COSHH):

Component(s) are listed under various sections of the COSHH regulation. Contact your local authorities to determine if substances are regulated under their jurisdiction.

Scottish Environmental Protection Agency (SEPA):

Component(s) are listed under various sections of SEPA. Contact your local authorities to determine if substances are regulated under their jurisdiction.

Canada:

Components are listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification:

Class B Division 3 – Combustible Liquid

Class D Division 2 Subdivision B – Toxic material causing other toxic effects.

Hazard Classification

European Union Directives 67/548/EEC and 1999/45/EC

Safety Phrases: S 23 Do not breathe fumes

S 24/25 Avoid contact with skin and eyes.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
case of insufficient ventilation wear suitable respiratory equipment.

S 38 In

S 36 Wear suitable protective clothing.

R10, Xn1 R65m R66, R67

R38 Irritating to Skin

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R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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U.S. STATE REGULATORY INFORMATION: The components of these products are covered under specific State regulations, as denoted below:

CALIFORNIA PROPOSITION 65: This product does not contain chemicals regulated under California Proposition 65.

International Air Transport Authority (IATA): Hazardous air transport. See Section 14

16.0 OTHER INFORMATION

NFPA health hazard	1	- Exposure would cause irritation with only minor residual injury
NFPA fire hazard	2	- Must be moderately heated or exposed to relatively high temperature before ignition can occur.
NFPA reactivity	0	- Normally stable, even under fire exposure conditions, and are not reactive with water.



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HMIS III Rating

Health	1 – Slight Hazard – Irritation or minor reversible injury possible
Flammability	2 – Moderate Hazard
Physical	0 – Minimal Hazard
Personal Protection	H

Reference:

UNEP Publications, OECD SIDS, Chemical Abstract Search (CAS) Database, European Chemicals Agency (ECHA), Workplace Hazard Material Information System (WHMIS)

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; DFG = Deutsche Forschungsgemeinschaft; DOT = Department of Transportation; DSL = Domestic Substances List; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EU = European Union; WHMIS=Workplace Hazard Material Information System; HMIS = Hazardous Materials Identification System; IARC = International Agency for Research on Cancer; IMO = International Maritime Organization; IATA = International Air Transport Association; MAK = Maximum Concentration Value in the Workplace;

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NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Association; NTP = National Toxicology Program; STEL = Short-term Exposure Limit; TDG = Transportation of Dangerous Goods; TSCA = Toxic Substances Control Act; TWA = Time Weighted Average

DISCLAIMER

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