

MATERIAL SAFETY DATA SHEET**EMERALD HONING OIL**

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (z400.1).

1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY

PRODUCT NAME	EMERALD HONING OIL	PRODUCT CODE:	EM599B
CHEMICAL NAME	MIXTURE	CHEMICAL FAMILY	MIXED HYDROCARBONS
CAS NUMBER	NOT APPLICABLE TO MIXTURES		
SYNONYMS	NONE		
COMPANY IDENTIFICATION	O'ROURKE PETROLEUM 223 McCARTY DRIVE. HOUSTON, TEXAS 77029		
EMERGENCY TELEPHONE	O'ROURKE PETROLEUM: (713) 672-4500		
MSDS INFORMATION	MSDS # EM599B, REVISION 0 EFFECTIVE DATE 1/01/12 ISSUED BY – O'ROURKE PETROLEUM		

2. HAZARDS IDENTIFICATION**POTENTIAL HEALTH EFFECTS****Effects of Overexposure****Acute****Eye Contact**

Avoid eye contact. This product may be slightly irritating to the eyes upon direct contact. Based on testing of similar products and/or components, exposure to high concentrations of vapors may be irritating to the eyes.

Skin Contact

Avoid skin contact. This product may cause slight skin irritation upon direct contact. Based on testing of similar products and/or components. Prolonged or repeated contact may result in contact dermatitis, which is characterized by dryness, chapping, and reddening. This condition may make the skin more susceptible to other irritants, sensitizers, and disease. Pre-existing skin conditions may make the skin more susceptible and facilitate uptake by this route. May be absorbed through skin.

Inhalation

Avoid prolonged inhalation of vapors. This product may be considered a low health hazard unless inhaled in very high concentrations. Acute and chronic exposure to vapors may be irritating to the respiratory tract. Severe intoxication may lead to drowsiness, dullness, numbness, and headache followed by dizziness,

weakness, and nausea. Exposure to even higher concentrations may lead to loss of consciousness and convulsions followed by death at extremely high concentrations where oxygen displacement is a factor, asphyxiation may occur.

Ingestion

Do not ingest. Ingestion of small quantities is usually nonfatal unless aspiration occurs. **Do not induce vomiting due to aspiration hazard unless directed to do so by a physician.** Aspiration may lead to chemical pneumonitis, which is characterized by pulmonary edema and hemorrhage and may be fatal. Signs of lung involvement include increased respiratory rate, increased heart rate, and a bluish discoloration of the skin. Coughing, choking and gagging are often noted at the time of aspiration. Gastrointestinal discomfort may develop, followed by vomiting with a further risk of aspiration. Severe oral intoxication will lead to intense burning of the throat and may result in drowsiness, weakness, and nausea. Loss of consciousness and convulsions followed by death may result.

Health Data

Chronic

No data available to suggest product may contribute to chronic health conditions.

HAZARD IDENTIFICATIONS*

	HMIS Code	NFPA Code	Key:
Health	1	1	4 = Severe
Flammable	0	0	3 = Serious
Reactivity	0	0	2 = Moderate
			1 = Slight
			0 = Minimal

*HMIS and NFPA ratings involve data and interpretations that may vary from company to company. They are intended only for rapid general identification of the magnitude of the specific hazard. To deal adequately with safe handling of this material, all the information contained in this MSDS must be considered.

3. COMPOSITION / INFORMATION ON THE COMPONENTS

Notes

- TLV - Threshold Limit Value
- STEL - Short-term Exposure Limit
- RQ - Reportable Quantity
- C - Ceiling Limit
- TWA - Time Weighted Average
- TPQ - Threshold Planning Quantity
- PEL - Permissible Exposure Limit
- CAS - Chemical Abstract Service Number

Components	Percentage by Weight	CAS No.	ACGIH (TLV-TWA)	OSHA (PEL-TWA)
Olefin Sulfide	1 -2%	mixture	1mg/m3	1mg/m3 mist
Ester	5 - 6%	mixture	5mg/m3	5mg/m3 mist
Hydrotreated Light Paraffinic Distillate	92 - 94%	64742-55-8	5mg/m3	5mg/m3 mist

4. FIRST AID MEASURES

GENERAL FIRST AID

Eye Contact

Flush eyes with large amounts of water and continue flushing until irritation subsides. **If irritation persists, seek immediate medical attention.**

Skin Contact

Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. Use a hand or skin lotion to prevent dryness. If redness or irritation occurs, seek medical attention.

Inhalation

If victim exhibits signs of vapor intoxication remove to fresh air. If breathing has stopped or is irregular, administer artificial respiration and supply oxygen if available. **If victim is unconscious, remove to fresh air and seek immediate medical attention.**

Ingestion

Do not induce vomiting due to aspiration hazard. If vomiting occurs lower head below knees to avoid aspiration. **Seek immediate medical attention.**

5. FIRE-FIGHTING MEASURES**Extinguishing Media**

CO₂, dry chemical, AFFF. Carbon dioxide will displace air in confined spaces and may cause an oxygen deficient atmosphere.

Special Fire-Fighting Procedures

Water may be ineffective but can be used to cool containers exposed to heat or flame. Use fog nozzle if water is used.

Unusual Fire and Explosion Hazards

Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide and other oxides may be generated as products of combustion. Hydrogen sulfide can be release.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Use personal protection recommended in Section 8 below. Isolate spill area and deny entry to unnecessary or unprotected personnel.

Spills or Leaks

Eliminate source of leak or spill. Confine area to clean up personnel. Ventilate confined area. Use explosion proof equipment. Minimize breathing vapors and skin contact. Absorb and/or confine liquid with sand, earth or other suitable material. Keep product out of sewer or watercourses. Advise authorities if product has entered or may enter waterways.

Spill Waste Disposal

Place in sealable containers. Reclaim or dispose of in accordance with local, state and federal regulations.

7. HANDLING AND STORAGE**Handling**

Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or fumes. Wash thoroughly after handling.

Wash with soap and water before eating, drinking, smoking or using toilet facilities. Launder contaminated clothing before reuse. READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL. DO NOT USE OR STORE near flame, sparks, or hot surfaces. USE ONLY IN WELL VENTILATED AREA. DO NOT weld, heat, or drill container. Tightly replace cap or bung. Emptied container may still contain hazardous or explosive vapor or liquid residuals. CAUTION! Do not use pressure to empty drum or explosion may result.

Storage

Must be stored in a sealable container. Store in cool well ventilated area. Do not use pressure to empty drum or drum may rupture with explosive force. Empty containers retain product residue (solid, liquid, and /or vapor) and can be dangerous. 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. Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner, or properly disposed of.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**EXPOSURE CONTROLS****Exposure Limits**

OSHA Permissible Exposure Limit (PEL): 5mg/m³ mist over an 8 hour daily exposure
ACGIH Threshold Limit Value (TLV): 5mg/m³ mist over an 8 hour daily exposure

PERSONAL PROTECTION**Eyes**

Wear safety glasses with side shields when working with this material as good safety practice. If this material is heated, wear chemical goggles or safety glasses and a face shield.

Skin

Wear protective clothing to minimize skin contact as a good industrial hygiene practice. Selection of protective clothing will depend on operations conducted. Consider physical requirements and other substances when selecting protective clothing. If this material is used at elevated temperatures, avoid contact with skin by wearing protective clothing, gloves and boots.

Respiratory

No special respiratory protection is normally required. When vapors or fumes from heated materials are not adequately controlled, wear a NIOSH/MSHA approved respirator. Use the following elements for air-purifying respirators: Organic Vapor.

Engineering Controls/ Ventilation

Use in a well-ventilated area. If heated material generates vapor, or fumes, use process enclosures, local exhaust ventilation, or other engineering controls to control exposure to control exposure. Ventilation requirements must be locally determined.

Other Protective Equipment

Wear other protective equipment as required to minimize skin contact.

9 PHYSICAL and CHEMICAL PROPERTIES**Appearance**

Pale yellow

Odor

Mild petroleum

Solubility in Water

Insoluble in water

Specific Gravity

0.87

Boiling Point

Not determined

Melt Point

Not determined

Flash Point and Method

190C PMCC

Auto-ignition Temperature

600°F (Based on component data)

Flammable Limits in Air (% volume)

LEL 0.90 (Based on component data)

UEL 7.0 (Based on component data)

Evaporation Rate (n-butyl Acetate = 1)

0.15 (Based on component data)

Vapor Pressure< 0.013 MM HG @ 68°F
(Based on component data)**Vapor Density (air = 1)**>2.0 @ 101kPa
(Based on component data)**10. STABILITY AND REACTIVITY****Stability**

Stable

Conditions to Avoid

Strong oxidants, a heat source or open flame

Materials to Avoid

May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Thermal Decomposition

Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide and hydrogen sulfide.

Hazardous Polymerization

Polymerization will not occur.

11. TOXICOLOGY INFORMATION**Acute exposure**

Eye Effects: May cause short-lasting discomfort to eyes. Symptoms may include redness, tearing and blurred vision. Wash thoroughly with water. (Based on data from components)

Skin Effects: Prolong or repeated skin contact may lead to skin irritation or dermatitis. (Based on data from components)

Respiratory Effects: Negligible hazard at normal handling conditions. (Based on data from components)

Dermal Toxicity: The LD₅₀ in rabbits is > 2000 mg/m³ based on component data.

Inhalation Toxicity A single 4 hour exposure of mice, guinea pigs and rats resulted in a LC₅₀ 4300 mg/m³

Oral Toxicity The LD₅₀ in rats is > 5000 mg/m³ based on component data.

Dermal Sensitization No data available to suggest product or components may be a skin sensitizer

Inhalation Sensitization No data available to suggest product or components may be a skin sensitizer

Chronic exposure

Chronic Toxicity In lab testing on rats the NOAEL(no-observed-adverse-effect-level) was found to be 50mg/m³. Under appropriate handling & good hygiene, this product is not expected to be a respiratory hazard.

Carcinogenicity This product contains severely refined mineral oil that is not a considered carcinogenic under IARC.

Mutagenicity No component of this product exhibits the potential for mutagenicity or genotoxicity in lab tests.

Reproduction Toxicity No data available to suggest any component of this product present at greater than 0.1% may cause reproductive toxicity.

Teratogenicity No data available to suggest any component of this product present at greater than 0.1% may cause reproductive toxicity.

Additional Information

Conditions aggravated: People with severe skin, kidney or liver problems should avoid use. (Based on data from components)

12. ECOLOGICAL INFORMATION**ENVIRONMENTAL TOXICITY**

Freshwater Fish Toxicity The acute LC₅₀ is 100 – 1000 mg/l (Based on component data)

Freshwater Invertebrates Toxicity Not determined.

Algal Inhibition Not determined.

Saltwater Fish Toxicity Not determined.

Saltwater Invertebrates Toxicity Not determined.

Bacteria Toxicity The acute EC₅₀ > 1000 ppm

Miscellaneous Toxicity Not determined.

ENVIRONMENTAL FATE

Soil Mobility This product is a mobile liquid

Persistence and degradability Less than 5%of components show moderate biodegradability

Bioaccumulate This product does not accumulate or biomagnify in the environment.

13. DISPOSAL CONSIDERATIONS

Waste Disposal

Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material. Dispose of in accordance to RCRA, Federal, State, and local regulations.

This material, if discarded, is not a hazardous waste under RCRA Regulation 40 CFR 261.

14. TRANSPORTATION

US DEPARTMENT OF TRANSPORTATION

This description may not apply to all shipping situations. Consult 49 CFR or appropriate Dangerous Goods regulations for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

Shipping Name: Not regulated
Hazard Class: Not regulated
Packing Group:
Label Required:

INTERNATIONAL INFORMATION

Sea (IMO)	Not regulated
Air (IATA)	Not regulated
Canadian Transport of Dangerous Goods	All components in compliance

15. REGULATORY INFORMATION**CERCLA****SARA EXTREME HAZARDOUS SUBSTANCE:**

This product does not contain any chemical substance known to be on the SARA Extreme Hazardous list.

SARA 313: This product contains no material known to be regulated under SARA Title III, Sect. 313

SARA 311 CLASSIFICATIONS:

1. Immediate (Acute) Health Effects: 1
2. Delayed (Chronic) Health Effects: 0
3. Fire Hazard: 1
4. Sudden Release of Pressure hazard: 0
5. Reactivity Hazard: 0

TSCA INVENTORY STATUS: This product, or its components, are listed on, or are exempt from the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

RCRA

This material is not a hazardous waste under RCRA Regulation 40 CFR 261.

16. OTHER INFORMATION

APPLICATION: METALWORKING FLUID

GENERAL DISCLAIMER

THIS INFORMATION RELATES TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN CONDITION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ACCURATE AND RELIABLE AS OF THE DATE COMPLETED. HOWEVER, NO REPRESENTATION, WARRANTY, OR GUARANTEE IS MADE AS TO ITS ACCURACY, RELIABILITY, OR COMPLETENESS, AND WE DO NOT ACCEPT LIABILITY FOR ANY LOSS OR DAMAGE THAT MAY OCCUR FROM THE USE OF THIS INFORMATION. FINAL DETERMINATION OF SUITABILITY OF ANY MATERIAL IS THE SOLE RESPONSIBILITY OF THE USER. ALL MATERIAL HAZARDS SHOULD BE USED WITH CAUTION TO GUARD AGAINST UNKNOWN HAZARDS. ALTHOUGH CERTAIN HAZARDS ARE DESCRIBED HEREIN, WE CANNOT GUARANTEE THAT THESE ARE THE ONLY HAZARDS, WHICH EXIST.

ADDITIONAL INFORMATION DISCLAIMER

The information presented in this MSDS may not be complete or comprehensive. For all questions concerning information either present in or absent from this MSDS, or if you require further information on the product or one of its components, please contact O'ROURKE' main office at (713) 672-4500.