Safety Data Sheet

Issue Date: 04-Apr-2019 **Revision Date:** 04-Apr-2019 **Version** 1

1. IDENTIFICATION

Product Identifier
Product Name **Harvest King Heavy Duty DOT 4 Brake Fluid**

Other means of identification Automotive brake fluid
SDS # HK021

Details of the supplier of the safety data sheet
Warren Oil Company, LLC
915 E. Jefferson
West Memphis, AR 72301

Emergency Telephone Number
Company Phone Number 1-800-428-9284
Emergency Telephone (24 hr) CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture
GHS-US/CA Classification

Eye Irrit. 2A	H319
STOT RE 2	H373

Full text of hazard classes and H-statements: see Section 16

Label Elements
GHS-US/CA Labeling
Hazard Pictograms (GHS-US/CA)

GH507 GH508

Signal Word (GHS-US/CA): Warning
Hazard Statements (GHS-US/CA): H319 – Causes serious eye irritation.
H373 – May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
Precautionary Statements (GHS-US/CA): P260 – Do not breathe vapors, mist or spray.
P264 – Wash hands, forearms, and other exposed areas thoroughly after handling.
P280 – Wear protective gloves, protective clothing, and eye protection.
P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 – Get medical advice/attention if you feel unwell.
P337+P313 – If eye irritation persists: Get medical advice/attention.
P501 – Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Other Hazards
Exposure may aggravate pre-existing eye, skin or respiratory conditions.

Unknown Acute Toxicity (GHS-US/CA)
No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Not applicable

Mixture

Name	Product Identifier	% *	GHS Ingredient Classification
Triethylene glycol monoethyl ether	(CAS No) 112-50-5	35 – 40	Not classified
Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, ester with boric acid (H3BO3), methyl ether	(CAS No) 71243-41-9	33 – 40	Not classified
Polyethylene glycol	(CAS No) 25322-68-3	6 – 14	STOT SE 3, H335
Diethylene glycol monobutyl ether	(CAS No) 112-34-5	5 – 10	Flam. Liq. 4, H227 Eye Irrit. 2A, H319
Diethylene glycol	(CAS No) 111-46-6	3 – 6	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
Diethylene glycol monoethyl ether	(CAS No) 111-90-0	3 – 5	Flam. Liq. 4, H227

Full text of H-phrases: see Section 16

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).
The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200].

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4. FIRST-AID MEASURES

Description of First-aid Measures
General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible.)
Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.
Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.
Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Obtain medical attention if irritation persists.
Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

Most Important Symptoms and Effects Both Acute and Delayed
General: May cause damage to organs through prolonged or repeated exposure. Causes serious eye irritation.
Inhalation: Prolonged exposure may cause irritation.
Skin Contact: Prolonged exposure may cause skin irritation.
Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.
Ingestion: Acute exposure of humans to ethylene glycol by ingesting large quantities causes three stages of health effects. Central nervous system (CNS) depression, including such symptoms as vomiting, drowsiness, coma, respiratory failure, convulsions, metabolic changes, and gastrointestinal upset are followed by cardiopulmonary effects and later renal damage. Ingestion may cause adverse effects.
Chronic Symptoms: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Indication of Any Immediate Medical Attention and Special Treatment Needed
If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

5. FIRE-FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.
Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture
Fire Hazard: Not considered flammable but will burn at high temperatures.
Explosion Hazard: Product is not explosive. Container may explode in heat of fire.
Reactivity: Hazardous reactions will not occur under normal conditions.

Advise for Firefighters
Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.
Firefighting Instructions: Use water spray or fog for cooling exposed containers.
Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO_2). Smoke. Irritating fumes.

Reference to Other Sections
Refer to Section 9 for flammability properties.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
General Measures: Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing.

For Non-Emergency Personnel:
Protective Equipment: Use appropriate personal protection equipment (PPE).
Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel:
Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedures: Ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental Precautions:
Prevent entry to sewers and public waters.

Methods and Materials for Containment and Cleaning Up
For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

Reference to Other Sections
See Section 8, Exposure Controls and Personal Protection and Section 13, Disposal Considerations.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Additional Hazards When Processed: Handle in accordance with standard industrial practices, and ensure appropriate ventilation. Avoid all contact with skin, eyes, and clothing. Do not release into the environment.
Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid breathing vapors, mist, and spray. Do not get in eyes, on skin, or on clothing.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

Conditions for Safe Storage, Including Any Incompatibilities
Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.
Incompatible Materials: Strong acids, strong bases, strong oxidizers.

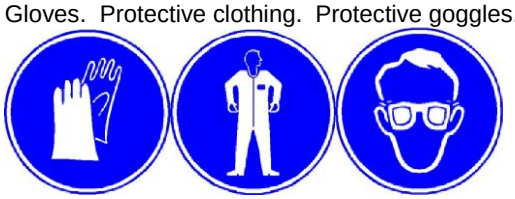
Specific End User(s)
Automotive brake fluid.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
For substances listed in Section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government..

Diethylene glycol monoethyl ether (111-90-0)		
USA AIHA	WEEL TWA (ppm)	25 ppm
Ontario	OEL TWA (mg/m^3)	165 mg/m^3
Ontario	OEL TWA (ppm)	30 ppm
Diethylene glycol monobutyl ether (112-34-5)		
USA ACGIH	ACGIH TWA (ppm)	10 ppm (inhalable fraction and vapor)
Manitoba	OEL TWA (ppm)	10 ppm (inhalable fraction and vapor)
Newfoundland & Labrador	OEL TWA (ppm)	10 ppm (inhalable fraction and vapor)
Nova Scotia	OEL TWA (ppm)	10 ppm (inhalable fraction and vapor)
Ontario	OEL TWA (ppm)	10 ppm (inhalable fraction and vapor)
Prince Edward Island	OEL TWA (ppm)	10 ppm (inhalable fraction and vapor)
Diethylene glycol (111-46-6)		
USA AIHA	WEEL TWA (mg/m^3)	10 mg/m^3
Polyethylene glycol (25322-68-3)		
USA AIHA	WEEL TWA (mg/m^3)	10 mg/m^3 (MW>200, aerosol)

Exposure Controls
Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.
Personal Protective Equipment: Gloves. Protective clothing. Protective goggles.



Materials for Protective Clothing: Chemically resistant materials and fabrics.
Hand Protection: Wear protective gloves.
Eye Protection: Chemical safety goggles.
Skin and Body Protection: Wear suitable protective clothing.
Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
Other Information: When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties
Physical State: Liquid
Appearance: Amber
Odor: Etheric
Odor Threshold: Not available
pH: 10.5
Evaporation Rate: Not available

Melting Point:	Not available
Freezing Point:	Not available
Boiling Point:	> 230 °C (> 446 °F)
Flash Point:	203 °C (397.4 °F)
Auto-ignition Temperature:	Not available
Decomposition Temperature:	Not available
Flammability (solid, gas):	Not available
Lower Flammable Limit	Not available
Upper Flammable Limit	Not available
Vapor Pressure:	Not available
Relative Vapor Density at 20°C:	Not available
Relative Density:	Not available
Specific Gravity:	1.06
Solubility:	Not available
Partition Coefficient: N-Octanol/ Water :	Not available
Viscosity:	< 1500 cSt
VOC content:	None

10. STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.
Chemical Stability: Stable under recommended handling and storage conditions (see Section 7).
Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions to Avoid: Direct sunlight, extremely high or low temperatures, and incompatible materials.
Incompatible Materials: Strong acids, strong bases, strong oxidizers.
Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects – Products
Acute Toxicity (Oral): Not classified
Acute Toxicity(Dermal): Not classified
Acute Toxicity (Inhalation): Not classified
LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified **pH:** 10.5
Eye Damage/Irritation: Causes serious eye irritation. **pH:** 10.5
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Carcinogenicity: Not classified
Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs (kidney) through prolonged or repeated exposure (oral).
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.
Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.
Symptoms/Injuries After Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.
Symptoms/Injuries After Ingestion: Acute exposure of humans to ethylene glycol by ingesting large quantities causes three stages of health effects. CNS depression, including such symptoms as vomiting, drowsiness, coma, respiratory failure, convulsions, metabolic changes, and gastrointestinal upset are followed by cardiopulmonary effects and later renal damage. Ingestion may cause adverse effects.
Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure.

Information on Toxicological Effects – Ingredient(s)
LD50 and LC50 Data:

Triethylene glycol monoethyl ether (112-50-5)	
LD50 Oral Rat	7750 mg/kg
Diethylene glycol monoethyl ether (111-90-0)	
LD50 Oral Rat	6031 mg/kg
LD50 Dermal Rabbit	9143 mg/kg
LC50 Inhalation Rat	> 5240 mg/m^3 (Exposure time: 4 h)
Diethylene glycol monobutyl ether (112-34-5)	
LD50 Oral Rat	5660 mg/kg
LD Dermal Rabbit	2700 mg/kg
Dietheylene glycol (111-46-6)	
LD50 Oral Rat	1120 mg/kg
LD50 Dermal Rabbit	11890 mg/kg
Polyethylene glycol (25322-68-3)	
LD50 Oral Rat	47000 mg/kg
LD50 Dermal Rabbit	> 20 ml/kg

12. ECOLOGICAL INFORMATION

Toxicity
Ecology – General: Not classified

Diethylene glycol monoethyl ether (111-90-0)	
LC50 Fish 1	10000 mg/l (Exposure time: 96 h – Species: Lepomis macrochirus [static])
EC50 Daphnia 1	3940 – 4670 mg/l (Exposure time: 48 h – Species: Daphnia magna)
LC50 Fish 2	19100 – 23900 mg/l (Exposure time: 96 h – Species: Lepomis macrochirus [flow-through])
Diethylene glycol monobutyl ether (112-34-5)	
LC50 Fish 1	1300 mg/l (Exposure time: 96 h – Species: Lepomis macrochirus [static])
EC50 Daphnia 1	> 100 mg/l (Exposure time: 48 h – Species: Daphnia magna)
Diethylene glycol (111-46-6)	
LC50 Fish 1	75200 mg/l (Exposure time: 96 h – Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	84000 mg/l (Exposure time: 48 h – Species: Daphnia magna)

Persistence and Degradability

DOT 4 Brake Fluid	
Persistence and Degradability	Not established

Bioaccumulative Potential

DOT 4 Brake Fluid	
Bioaccumulative Potential	Not established
Diethylene glycol monoethyl ether (111-90-0)	
Log Pow	-0.8
Diethylene glycol monobutyl ether (112-34-5)	
BCF Fish 1	(no bioconcentration expected)
Diethylene glycol (111-46-6)	
BCF Fish 1	100 – 180
Log Pow	-1.98 at 25 °C (77 °F)

Mobility in Soil: Not available

Other Adverse Effects
Other Information: Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

Ecology – Waste Materials: Avoid release to the environment.

14. TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

In Accordance with DOT Not regulated for transport
In Accordance with IMDG Not regulated for transport
In Accordance with IATA Not regulated for transport
In Accordance with TDG Not regulated for transport

15. REGULATORY INFORMATION

U.S. Federal Regulations

DOT 4 Brake Fluid	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
Triethylene glycol monoethyl ether (112-50-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Diethylene glycol monoethyl ether (111-90-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Diethylene glycol monobutyl ether (112-34-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Diethylene glycol glycol (111-46-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Polyethylene glycol (25322-68-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU – XU – indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e., Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C))
Poly(oxy-1,2-ethanediyl, .alpha.-hydro-.omega-hydroxy-, ester with boric acid (H3BO3), methyl ether (71243-41-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU – XU – indicates a substance exempt from reporting under the Inventory Update Reporting Rule, i.e., Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(C))

U.S. State Regulations

Diethylene glycol (111-46-6)
U.S. – Pennsylvania – RTK (Right to Know) List

Canadian Regulations

Triethylene glycol monoethyl ether (112-50-5)
Listed on the Canadian DSL (Domestic Substance List)
Diethylene glycol monoethyl ether (111-90-0)
Listed on the Canadian DSL (Domestic Substance List)

Diethylene glycol monobutyl ether (112-34-5)
Listed on the Canadian DSL (Domestic Substance List)
Diethylene glycol (111-46-6)
Listed on the Canadian DSL (Domestic Substance List)
Polyethylene glycol (25322-68-3)
Listed on the Canadian DSL (Domestic Substance List)
Poly(oxy-1,2-ethanediyl), .alpha.hydro-.omega.-hydroxy-, ester with boric acid (H3BO3), methyl ether (71243-41-9)
Listed on the Canadian NDSL (Non-Domestic Substance List)

16. OTHER INFORMATION

Issue Date: 04-Apr-2019
Revision Date: 04-Apr-2019
Revision Note: N/A

Other Information This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR).

GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 4	Flammable liquids Category 4
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT RE 3	Specific target organ toxicity (single exposure) Category 3
H227	Combustible liquid
H302	Harmful if swallowed
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet