



Effective Date: May 10, 2016

Product #(s) – 12712, 12804, 12912, 31901

Safety Data Sheet

For Emergency Call:
CHEM-TEL (800) 255-3924 24 Hour Assistance

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Zecol DOT 3 Brake Fluid

CAS Number: Various

Recommended Uses: Brake Fluid

Company Identification

Manufacturer's Name: ZECOL PRODUCTS COMPANY

Address: 4635 Willow Drive, Medina, MN 55340

Telephone – General Information: (763) 478-3438

2. HAZARDS IDENTIFICATION

Hazard Classes: Serious Eye Damage/Eye Irritation Category 1
Specific Target Organ Toxicity (Repeated Exposure) Category 3

Signal Word: DANGER

Hazard Statements:

H318 Causes serious eye damage.

H372 Causes damage to the kidneys through prolonged or repeated exposure.

Precautionary Statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children,

P103 Read label before use.

P260 Do not breathe mist.

P280 Wear eye and face protection.

P305 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor.

P314 Get medical advice/attention if you feel unwell.

P501 Disposal: Dispose of contents/container to a specialized waste disposal plant in accordance with local/regional regulations.

Hazard Pictograms:





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3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	Typical Weight Percentage	CAS Number
Triethylene Glycol Monobutyl Ether	23 - \leq 35%	143-22-6
Triethylene Glycol Monomethyl Ether	3 - \leq 10%	112-35-6
Diethylene Glycol	10 - \leq 20%	111-46-6
Tetraethylene Glycol Monobutyl Ether	9 - \leq 14%	1559-34-8
Triethylene Glycol	6 - \leq 10%	112-60-7
Triethylene Glycol Monoethyl Ether	8 - \leq 20	112-50-5
Pentaethylene Glycol Monobutyl Ether	2 - \leq 5%	23601-39-0
Diethylene Glycol Monobutyl Ether	1 - \leq 8%	112-34-5
Polyethylene Glycol Methyl Ether	\leq 4%	9004-74-4
Diethylene Glycol Monoethyl Ether	\leq 2%	111-90-0

4. FIRST AID

Eyes: Immediately move victim away from exposure and into fresh air. If irritation or redness develops, flush eyes with clean water and seek immediate medical attention. For direct contact, remove contact lenses if present and easy to do so. Immediately hold eyelids apart and flush the affected eye(s) with clean water for at least 30 minutes. Seek immediate medical attention.

Skin: Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops and persists, seek medical attention.

Inhalation: First aid is not normally required. If breathing difficulties develop, move victim away from source of exposure and into fresh air. Seek immediate medical attention.

Ingestion: First aid is not normally required. However, if swallowed and symptoms develop, seek medical attention.

Medical Conditions: None known.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Dry chemical, CO₂, water spray or alcohol-resistant foam. Water spray is recommended to cool or protect exposed materials or structures. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Specific Hazards: None known.

Hazardous Combustion Products: None anticipated.

Special Firefighting Procedures: For fires beyond the initial stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self-contained breathing



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apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate immediate hazard area and keep unauthorized personnel out. Cool equipment exposed to fire with water, if it can be done with minimal risk.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: None anticipated

Environmental Precautions: Stop spill/release if it can be done with minimal risk. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways.

Methods for Containment and Clean-Up: Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand, earth or other non-combustible material, and place in suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Use good personal hygiene practice.

Conditions for Safe Storage: Store only in approved containers. Protect container(s) against physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Diethylene Glycol Butyl Ether	10 ppm ^(IVP)	None		
Glycols and Other Glycol Ethers	None	None	None	None

IVP = Inhalable fraction and vapor

Engineering Controls: If current ventilation practices are not adequate to minimize exposure, additional ventilation or exhaust systems may be required.

Specific Personal Protective Equipment

Eye/Face Protection: Wear a face shield along with goggles when working with corrosive, highly irritating or toxic substances. The use of eye protection that meets or exceeds ANSI Z.87.1 is recommended to protect against potential eye contact, irritation or injury

Skin: Not required based on the hazards of the material. However, it is considered good practice to wear gloves when handling chemicals.

Respiratory Protection: Respiratory protection is not usually required.

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Air-purifying respirators provide limited protection and cannot be used in atmospheres that exceed the



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maximum use concentration as directed by regulation or the manufacturer's instructions, in oxygen deficient (less than 19.5% oxygen) situations or under conditions that are immediately dangerous to life and health (IDLH).

Use a positive pressure air supplied respirator if there is potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.

Other Protective Equipment: A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.

9. PHYSICAL AND CHEMICAL PROPERTIES (approximate values)

Appearance: Amber liquid

Odor: Mild

Odor threshold: No data

pH: Not applicable

Melting/Freezing Point: -50°C / -58°F

Boiling point (at 1 atm): >210°C / 410 °F

Flash Point: 121°C / 250°F (Closed Cup)

Auto-Ignition Temperature: 310°C / 590°F

Evaporation rate (butyl acetate = 1): No data

Flammability (solid, gas): Not applicable

Explosive Limits: Non-flammable

Vapor Pressure: No data

Vapor Density (air = 1): >1

Specific gravity (H₂O = 1): 1.05

Solubility in water: Soluble

Partition Coefficient: No data

Decomposition Temperature: No data

Viscosity: No data

10. STABILITY AND REACTIVITY

Stability (thermal, light, etc.): Stable under normal conditions of storage and handling.

Conditions to Avoid: Avoid all possible sources of ignition (see Sections 5 and 7).

Incompatibility (materials to avoid): Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: Carbon oxides.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION



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Acute Toxicity:

Product/Ingredient Name	Result	Species	Dose
DOT 3 Brake Fluid	LD50 Oral	ATE	>2g/kg
	LD50 Dermal	ATE	>2 g/kg
	LC50 Inhalation (vapor)	ATE	>5 mg/l

Skin Corrosion/Irritation: May cause mild skin irritation.

Serious Eye Damage/Irritation: Causes moderate to severe eye irritation.

Signs and Symptoms: High concentrations may cause irritation of nose, throat and digestive tract.

Skin Sensitization: None reported

Respiratory Sensitization: None reported

Germ Cell Mutagenicity: None reported

Carcinogenicity: None reported. It is not listed by NTP, IARC or OSHA.

Reproductive Toxicity: None reported

Specific Target Organ Toxicity (Single Exposure): None reported.

Specific Target Organ Toxicity (Repeated Exposure): Diethylene Glycol causes effects on the kidney in laboratory animal. Although many glycol ethers are not classified for target organ toxicity, animal data for some of them indicate effects on the blood (hemolysis) with secondary effects on the liver and kidney. Human red blood has been shown to be significantly less sensitive to hemolysis than those of rodents and rabbits. Some have also demonstrated effects on the testes and central nervous system. These effects are seen at excessively high doses.

12. ECOLOGICAL INFORMATION

Toxicity: Glycols and glycol ethers are generally considered of low toxicity.

Persistence and Degradability: Glycols and glycol ethers are generally considered biodegradable.

Bioaccumulative Potential: No data

Mobility in Soil: Not applicable

Other Adverse Effects: None known

13. DISPOSAL CONSIDERATIONS



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The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

Recycle wherever possible. Large volumes may be suitable for re-distillation or, if contaminated, incinerated. Can be disposed of in a sewage treatment facility.

This material, if discarded as produced would not be a federally regulated RCRA hazardous waste. Use which results in chemical or physical change of this material could subject it to additional regulation as a hazardous waste.

14. TRANSPORT INFORMATION

DOT/TDG Proper Shipping Name: Not Regulated
DOT/TDG Identification Number: Not Regulated
DOT Hazard Class: None / TDG Hazard Class: None
DOT/TDG Packing Group: Not Regulated
ERG Guide Number: None
Marine Pollutant: No

15. REGULATORY INFORMATION

TSCA: Components are listed on the TSCA inventory.

DSL: Components are listed on the DSL inventory.

OSHA (Occupational Safety and Health Administration): This material is considered to be hazardous as defined by the OSHA Hazard Communication Standard.

This material has not been identified as a carcinogen by NTP, IARC or OSHA

CERCLA/SARA – Section 302 Extremely Hazardous Substances and TPQ (in pounds): This material does NOT contain chemicals subject to the reporting requirements of SARA 302 and 40 CFR 355 Appendix A and B.

EPA (CERCLA) Reportable Quantity (in pounds): This material does NOT contain chemicals subject to the reporting requirements of 40 CFR 302.4.

CERCLA/SARA - Sections 311/312 (Title III Hazard Categories):
Acute: Yes Chronic: Yes Fire: No Reactivity: No

CERCLA/SARA – Section 313 and 40 CFR 372: This material contains the following chemicals subject to the reporting requirements of SARA 313 and SARA Title III and 40 CFR:

Table with 3 columns: Component, Concentration, de minimis. Rows include Triethylene Glycol Monobutyl Ether, Triethylene Glycol Monomethyl Ether, Triethylene Glycol Monoethyl Ether, and Diethylene Glycol Monobutyl Ether.



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Diethylene Glycol Monoethyl Ether	≤2%	1%
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California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material does NOT contain detectable chemicals known to the State of California to cause cancer and/or reproductive toxicity.

Canada:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the Regulations.

WHMIS Hazard Class: D2B

16. OTHER INFORMATION

Issue Date: May 10, 2016
Previous Issue Date: June 1, 2015
Change: Minor wording changes

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