



MAJOR BRANDS LUBRICANTS

FULL STRENGTH ANTIFREEZE & COOLANT (Orange)
FOR VEHICLES REQUIRING DEXCOOL

SAFETY DATA SHEET

SECTION 1

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product/Chemical Name:	Full Strength Dexcool Anti-freeze Coolant with Dye	Date Prepared: 10/17/2014
Product Description:	Ethylene Glycol Based Antifreeze	
Use of substance/mixture:	Automotive Engine Antifreeze & Coolant	
Chemical Family:	Inhibited Ethylene Glycol and Water Solution	
CAS Registry:		
Details of the supplier:	Major Brands Oil Company 462 West 23rd Street, Holland, MI 49423 616-392-5936 www.majorbrandsoil.com	EMERGENCY PHONE NUMBERS USA Chemtrec 800-424-9300 24 hrs International Chemtrec 703-527-3887

SECTION 2

HAZARDOUS IDENTIFICATION

GHS-US Classification	
Classification of Mixture:	Acute Tox. 4 (oral) H302 Repr. 2 H361 STOT RE 2 H373

Full text of H-phrases: *see section 16*

GHS-US Labelling
Pictograms:



GHS07



GHS08

Signal Word:	Warning
Hazard Statements:	H302 - Harmful if swallowed H361 - Suspected of damaging fertility or the unborn child H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)
Precautionary statements:	P201 - Obtain special instructions before use P202 - Do not handle until all safety precautions have been read and understood P260 - Do not breathe mist, spray or vapors P264 - Wash affected areas thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear personal protective equipment as required P301, P310 - If swallowed: Immediately call doctor/physician or poison center P301, P330, P331 - If swallowed: rinse mouth. DO NOT induce vomiting P304, P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P308, P313 - If exposed or concerned: Get medical advice/attention P405 - store locked up P501 - Dispose of contents/container, in a safe manner, to appropriate waste disposal facility, in accordance with local/regional/national/international regulations

No additional hazards

No data available for unknown acute toxicity



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SECTION 3

COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>CAS No.</u>	<u>Wt. Range %</u>	<u>GHS-US Classification</u>
*1,2-ethanediol (Ethylene Glycol)	107-21-1	90-97%	Acute Tox 4 (oral), H302
Diethylene glycol	11-46-6	<5%	Acute Tox 4 (oral), H302 STOR RE 2, H373
Potassium 2-ethylhexanoate	3164-85-0	<3%	Repr. 2, H361
Denatonium benzoate	3734-33-6	30 - 50 ppm	Acute Tox. 4 (oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Proprietary Additives and Inhibitors	Not applicable	<1%	Not applicable
Dye	Not applicable	<1%	Not applicable
Water	7732-18-5	<4%	Not applicable

*Hazardous according to OSHA (1910.1200) or one or more state Right-to-Know lists.

SECTION 4

FIRST AID MEASURES

Emergency and First Aid

Procedures:

General First Aid measures:	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible.)
Eye contact:	Immediately flush with large quantities of water for at least 15 minutes
Skin contact:	Remove excess with cloth or paper towel. Wash thoroughly with soap and water. If irritation persists, get medical attention.
Ingestion:	Immediately contact a physician, poison control center or emergency treatment center. DO NOT induce vomiting. Aspiration Hazard: Product may be inhaled into lungs if vomited. Swallowing a small quantity of this material will result in serious health hazards. The lethal dose in humans is estimated to be 100mL (3 oz).
Inhalation:	Remove to fresh air. Restore and/or support breathing as required. Keep victim warm and at rest.
Symptoms/injuries:	Causes damage to organs (kidneys) (oral). Suspected of damaging fertility or the unborn child.
Symptoms/injuries after skin contact:	Causes skin irritation
Symptoms/injuries after eye contact:	Causes serious eye damage
Symptoms/injuries after ingestion:	Swallowing a small quantity of this material will result in serious health hazard. The lethal dose in humans is estimated to be 100 mL (3oz)
Note to Physicians:	Treat symptomatically

Special

Precautions/Procedures:

A more effective intravenous antidote for physician uses is 4-methylpyrazole, a potent inhibitor of alcohol dehydrogenases, which effectively blocks the formation of toxic metabolites of ethylene glycol. It has been used to decrease the metabolic consequences of ethylene glycol poisoning before metabolic acidosis coma, seizures, and renal failure have occurred.



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SECTION 5

FIRE-FIGHTING MEASURES

Unusual Fire Fighting

Procedures: None known
Flash Point: 254°F (123°C)
Flash Point Method: Not applicable
Burning Rate: Not applicable
Autoignition Temperature: Not determined

Flammable limits in air (% by volume): **LEL:** Not determined
UEL: Not determined

Flammability Classification: Does not burn, but can emit fumes in a fire

Extinguishing Media: For large fires use alcohol-type or all purpose foam. For small fires use water spray, dry chemical, foam or carbon dioxide to extinguish

Unsuitable extinguishing Media:

Do not use a heavy water stream. May spread fire.

Unusual Fire or Explosion Hazards:

None known

Fire-Fighting Instructions:

According to the National Fire Protection Association Guide, use water spray, dry chemical, foam or carbon dioxide. A direct stream of water or foam may cause frothing. Use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.

Fire-Fighting Equipment:

Because fire may produce toxic thermal decomposition products, wear a self-Contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

Unusual Fire Fighting

Procedures: Not required

Other Information: Products evolved when subjected to heat or combustion: carbon monoxide and carbon dioxide may be formed on burning in limited air supply.

SECTION 6

ACCIDENTAL RELEASE MEASURES

Spill/Leak Procedures:

Ventilate area. Avoid breathing vapor. Evacuate unnecessary personnel. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

Regulatory Requirements:

If more than 10,539 pound of product is spilled, then report spill according to SARA 304 and/or CERCLA 102(a) requirement, unless product qualifies for petroleum exemption (CERCLA Section 101(14)).

SECTION 7

HANDLING AND STORAGE

Handling Precautions:

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Minimum feasible handling temperatures should be maintained.

Storage Requirements:

Keep only in the original container. Empty containers that may contain product residue and may be dangerous. Keep container closed when no in use. Product may become solid at temperatures below -37°C (-34°F). Periods of exposure to high temperature should be minimized. Water contamination should be avoided. Keep container away from open flames, strong acids, strong bases and oxidizing agents. Do not store near food.

ETHYLENE GLYCOL BASE - Ethylene Glycol has produced birth defects in rodents.



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SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

USA ACGIH

ACGIH Ceiling (mg/m³) - 100.00 mg/m³

USA ACGIH

Remark (ACGIH) - Upper respiratory tract (URT) & eye irritant

Personal protection:

Avoid all unnecessary exposure. Wear gloves and safety glasses.



Ventilation:

Normal to maintain exposure below TLV **Permissible Concentrations in**

Air:

10mg/cubic meter for particulate mist; 50 ppm (125 mg/cubic meter) ceiling limit for Ethylene Glycol (ACGIH 1984-1985)

Respiratory Protection:

Supplied air respiratory protection for cleaning large spills or upon entry into tanks, vessels, or other confined spaces. Use a NIOSH approved organic vapor and gas respirator with mist filter.

Eye Protection:

Chemical type goggles or face shield optional.

Protective

Clothing/Equipment:

Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles.

Work and Hygienic Practices:

Exposed employees should exercise reasonable personal cleanliness; this includes cleansing exposed skin area several times daily with soap and water and laundering or dry cleaning soiled work clothing at least weekly.

Safety Stations:

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment:

Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments:

Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking and smoking, using the toilet, or applying cosmetics.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Appearance and odor:

Clear red liquid with a mild odor

pH:

8

Relative evaporation rate

Nil

(butylacetate=1):

Boiling Point (760 mm Hg):

317° F

Freezing/Melting Point:

0° F

Flash Point:

241°F (100% Ethylene Glycol) ASTM D56

Auto-ignition temperature:

752°F (100% Ethylene Glycol) ASTM D56

Specific Gravity (water =1):

1.12

Vapor Density (air =1):

1.12 g/l (9.3 lbs/gal)

Percent Volatile by Volume:

NIL

Evaporation Rate

(butyl acetate =1):

Not determined

Solubility in Water (% by wt):

100%

Vapor Pressure (at 20°C):

< 0.1

Viscosity SUS @ 100°F:

Less than 20cst

Explosive limits:

3.2 - 15.3 vol %



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SECTION 10

STABILITY AND REACTIVITY

Stability:	Stable
Polymerization:	Does not occur
Chemical Incompatibilities:	Normally unreactive, but try to avoid strong oxidizers, strong acids and strong bases at high temperatures.
Conditions to Avoid:	High temperatures above 413°C (775°F) (product can decompose), extreme low temps.
Hazardous decomposition products:	Carbon dioxide, carbon monoxide, fumes, alcohols, aldehydes, ethers

SECTION 11

TOXICOLOGICAL INFORMATION

Eye Effects:	Believed to cause slight eye irritation.
Skin Effects:	Can be irritating to skin upon prolonged contact.
Acute Inhalation Effects:	Drowsiness, narcosis, and unconsciousness possible upon exposure to high concentrations in poorly ventilated confined spaces.
Acute Oral Effects:	Harmful if swallowed. Can cause irritation to mouth, throat and stomach
Chronic Effects:	Liver and kidney damage in a 2 year rat feeding study using 1-2% Ethylene Glycol. Oral administration of very high doses of Ethylene Glycol produced birth defects in laboratory animals.
Carcinogenicity:	Neither product nor its ingredients are listed by IARC, NTD or OSHA.
Mutagenicity:	Not mutagenic
Teratogenicity:	Not Teratogenic

SECTION 12

ECOLOGICAL INFORMATION

Ecotoxicity:	
Oral:	Believed to be 4.7 - 8.5 g/kg (rat); moderately toxic
Inhalation:	Not determined
Dermal:	Believed to be 1-3 g/kg (rabbit); slightly toxic
Other:	Not determined
Irritation Index/Estimation of Irritation (Species):	
Skin:	Believed to be 0.5-1.8/8.0 (rabbit); slightly irritating
Eyes:	Believed to be 15-25/110 (rabbit); slightly irritating
Soil Absorption/Mobility:	Not determined
Effect on ozone layer:	No known effect on the ozone layer
Effect on global warming:	No known ecological damage caused by this product
Other information:	Avoid release to the environment

SECTION 13

DISPOSAL CONSIDERATIONS

Waste Disposal Method:	Dispose of waste in accordance with Federal, State and local laws.
Disposal Regulatory Requirements:	Under RCRA, it is the responsibility of the user of products to determine, at the time of disposal, whether product meets RCRA criteria for hazardous waste. This is because product uses transformations, mixture, processes, etc., may render the resulting material hazardous (see waste classifications)
Container Cleaning and Disposal:	Containers should be cleaned of residual product before disposal, and disposed of in accordance with all applicable laws and regulations.



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SECTION 14

TRANSPORT INFORMATION

DOT Proper Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
Shipping Symbols: G-Identifies PSN requiring a technical name
Hazard Class: 9-Class 9 – Misc hazardous material 49 CFR 173.140
Packing Group: III - Minor Danger
Label: 9-Class 9 (Misc dangerous materials)
Special Provisions (172.102): Not applicable
Bulk shipments
DOT Proper Shipping
Name: Environmentally hazardous substance, liquid, n.o.s. (Ethylene glycol)
UN Number: UN 3082
Label Requirement: Class 9, UN 3082



SECTION 15

REGULATORY INFORMATION

US Federal Regulations

EPA TSCA Regulatory Flag:

Toxic Substances Control Act (TSCA): The intentional ingredients of this product are listed.

denatonium benzoate (3734-33-6)

Listed on the US TSCA inventory

ethylene glycol (107-21-1)

Listed on the US TSCA inventory, and US SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists) - 5000 lb(s)

SARA Section 311/312 Hazard Classes - Immediate health hazard

- Delayed (chronic) health hazard

- Ethylene glycol is subject to Tier 1 and/or Tier II annual inventory reporting.

SARA Section 313 - Emission reporting - Ethylene glycol is subject to Form R reporting requirements.

diethylene glycol (111-46-6)

Listed on the US TSCA inventory

potassium 2-ethylhexanoate (3164-85-0)

Listed on the US TSCA inventory

International Regulations

Canada:

All components listed on both TSCA (USA) and DSL (Canada) inventory.

CANADIAN WHMIS CLASSIFICATION:

Class D, Division 2, Subdivision A (A toxic material causing other chronic effects)

Classification according to Regulation (EC) No. 1272/2008 {CLP}

Classification according to Directive 61/548/EEC {DSD} or 1999/45/EC {DPD}

US State Regulations

Massachusetts:

Right To Know List

New Jersey:

Right To Know Hazardous Substance List

Pennsylvania:

Right To Know List



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SECTION 16

OTHER INFORMATION

Full text of H-phrases:

Acute Tox. 4 (Oral):	Acute toxicity (oral), Category 4
Eye Irrit. 2A:	Serious eye damage/eye irritations, Category 2A
Repr. 2:	Reproductive toxicity, Category 2
Skin Irrit. 2:	Skin corrosion/irritations, Category 2
STOT RE 2:	Specific target organ toxicity - Repeated exposure, Category 2
STOT SE 3:	Specific target organ toxicity - Single exposure, Category 3, Respiratory tract irritation
H302:	Harmful if swallowed
H315:	Causes skin irritation
H319:	Causes serious eye irritation
H335:	May cause respiratory irritation
H361:	Suspected of damaging fertility or the unborn child
H373:	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard:

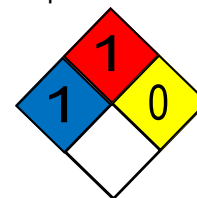
1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard:

1 - Must be preheated before ignition can occur.

NFPA reactivity:

0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health:

2 - Moderate Hazard - Temporary or minor injury may occur

Flammability:

1 - Slight Hazard

Physical:

0 - Minimal Hazard

Personal Protection:

B

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