

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date: 03/30/2016

SECTION 1: Identification of the sub	stance/mixture and of the company/undertaking
1.1. Product identifier	
Product form	: Mixture
Product name	: Blue Mountain Long Life Concentrate Antifreeze and Coolant
1.2. Relevant identified uses of the subs	stance or mixture and uses advised against
Use of the substance/mixture	: Antifreeze & Coolant
1.3. Details of the supplier of the safety	data sheet
Old World Industries, LLC 4065 Commercial Ave. Northbrook, IL 60062 - USA T (847) 559-2000 www.oldworldind.com	
1.4. Emergency telephone number	
Emergency number	: (800) 424-9300; (703) 527 3887 (International) Chemtrec
SECTION 2: Hazards identification	
2.1. Classification of the substance or m	nixture
GHS-US classification	
Acute toxicity (oral), Category 4 Reproductive toxicity, Category 2 Specific target organ toxicity — Repeated expos Full text of H statements : see section 16	H302 H361 ure, Category 2 H373
2.2. Label elements	
2.2. Label elements GHS-US labelling Hazard pictograms (GHS-US)	: GHS07 GHS08
GHS-US labelling	: $\overbrace{GHS07}$ $\overbrace{GHS08}$: Warning
GHS-US labelling Hazard pictograms (GHS-US)	
GHS-US labelling Hazard pictograms (GHS-US) Signal word (GHS-US)	 Warning H302 - Harmful if swallowed H361 - Suspected of damaging fertility or the unborn child
GHS-US labelling Hazard pictograms (GHS-US) Signal word (GHS-US) Hazard statements (GHS-US)	 Warning 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) 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, 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 to appropriate waste disposal facility, in accordance with

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture			
Name	Product identifier	% by wt	GHS-US classification
ethylene glycol	(CAS No) 107-21-1	90 - 97	Acute Tox. 4 (Oral), H302
diethylene glycol	(CAS No) 111-46-6	< 5	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
water	(CAS No) 7732-18-5	< 4	Not classified
potassium 2-ethylhexanoate	(CAS No) 3164-85-0	< 3	Repr. 2, H361
denatonium benzoate	(CAS No) 3734-33-6	30 - 50 ppm	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Remove contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Rinse immediately with plenty of water (for at least 15 minutes), Get medical advice/attention.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water for 15 minutes, lifting lower and upper lids. If eye irritation persists: Get medical advice and attention.
First-aid measures after ingestion	: Obtain emergency medical attention. Rinse mouth. If the person is fully conscious, make him/her drink two glasses of water. Never give an unconscious person anything to drink. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell. If medical advice is delayed, and if the person has swallowed a moderate volume of material (a few ounces), then give three to four ounces of hard liquor, such as whiskey. For children, give proportionally less liquor, according to weight.
4.2. Most important symptoms and effect	s, both acute and delayed
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 (3 oz).

4.3. Indication of any immediate medical attention and special treatment needed

A more effective intravenous antidote for physician uses is 4-methylpyrazaole, 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 occured.

SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Dry powder. Water fog. Fine water spray. Foam. Carbon dioxide. Dry chemical powder. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream. May spread fire.
5.2. Special hazards arising from the sub	ostance or mixture
Fire hazard	: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.
Reactivity	: No dangerous reactions known under normal conditions of use.
5.3. Advice for firefighters	
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

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Special protective equipment for fire fighters : Wear positive pressure self-contained breathing apparatus (SCBA). Protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves).

SECTION 6: Accidental release measures		
6.1. Personal precautions, protective	. Personal precautions, protective equipment and emergency procedures	
6.1.1. For non-emergency personnel		
Emergency procedures	: Evacuate unnecessary personnel.	
6.1.2. For emergency responders		
Protective equipment	: Equip cleanup crew with proper protection. Refer to section 8.2.	
Emergency procedures	: Ventilate area.	
6.2. Environmental precautions		
Prevent entry to sewers and public waters.	lotify authorities if liquid enters sewers or public waters.	
6.3. Methods and material for contain	nment and cleaning up	
Methods for cleaning up	Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Store away from other materials.	

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after handling.
7.2. Conditions for safe storage, include	ling any incompatibilities
Storage conditions	 Keep only in the original container in a cool, well ventilated place away from : Heat sources. Keep container closed when not in use. Product may become solid at temperatures below -18 °C (0 °F). Do not store near food, foodstuffs, drugs or potable water supplies. Do not cut, drill, weld, use a blowtorch on, etc. containers even when empty.
Incompatible products	: Keep away from strong acids, strong bases and oxidizing agents.
Incompatible materials	: Sources of ignition.
7.3. Specific end use(s)	

No additional information available

SECTIC	SECTION 8: Exposure controls/personal protection	
8.1.	Control parameters	

ethylene glycol (107-21-1)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m ³
ACGIH	Remark (ACGIH)	Upper Respiratory Tract (URT) & Eye irritant
OSHA	Not applicable	

8.2. Exposure controls

Personal protective equipment

: Avoid all unnecessary exposure. Gloves. Safety glasses.



Hand protection

Eye protection

Respiratory protection

: Wear protective gloves.

: Chemical goggles or safety glasses.

: Respiratory protection not required in normal conditions. If exposed to levels above exposure limits wear appropriate respiratory protection.

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Information on basic physical and chemical properties

SECTION 9: Physical and chemical properties

Other information

9.1.

: Do not eat, drink or smoke during use.

5.1. Information on pasic physical and ch	ennear properties
Physical state	: Liquid
Color	: Slightly yellow to green Green
Odor	: Mild
Odor threshold	: No data available
pH 50% water solution	: 8
Relative evaporation rate (butylacetate=1)	: Nil
Freezing point	: -18 °C (0 °F)
Boiling point	: 158 °C (317 ⁰F)
Flash point	: 116 °C (241 °F) [100% Ethylene Glycol] <i>ASTM D56</i>
Auto-ignition temperature	: 400 °C (752 °F) [100% Ethylene Glycol] <i>Literature</i>
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: < 0.1 @ 20 ℃
Relative vapor density at 20 °C	: No data available
Specific Gravity	: 1.12
-	: 1.12 kg/l (9.34 lbs/gal)
-	: Water: Complete
5	: No data available
5	: No data available
	: No data available
5. S	: No data available
	: Not applicable.
	: Not applicable.
Explosive limits	: 3.2 - 15.3 vol %
9.2. Other information	
	: 0%
SECTION 10: Stability and reactivity	
10.1. Reactivity	
No dangerous reactions known under normal cond	litions of use.
10.2. Chemical stability	
Stable.	
10.3. Possibility of hazardous reactions	
Hazardous polymerization will not occur.	
10.4. Conditions to avoid	
Extremely high or low temperatures. Keep away fr	om anv flames or sparking source
10.5. Incompatible materials	
Keep away from strong acids, strong bases and ox	kidizing agents.
10.6. Hazardous decomposition products	
alcohols. Carbon dioxide. Carbon monoxide. Fume	e. alcohols. Aldehydes. Ethers.
SECTION 11: Toxicological informatic	on and a second s
11.1. Information on toxicological effects	
Acute toxicity	: Oral: Harmful if swallowed.
denatonium benzoate (3734-33-6)	
LD50 oral rat	584.00 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 2,000.00 mg/kg (Rabbit; Literature study)
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denatonium benzoate (3734-33-6)	
ATE US (oral)	584.00 mg/kg bodyweight
ethylene glycol (107-21-1)	
LD50 oral rat	> 5,000.00 mg/kg (Rat; Literature study)
ATE US (oral)	500.00 mg/kg bodyweight
diethylene glycol (111-46-6)	
LD50 dermal rabbit	11,890.00 mg/kg (Rabbit)
ATE US (oral)	500.00 mg/kg bodyweight
ATE US (dermal)	11,890.00 mg/kg bodyweight
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
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 (3 oz).

SECTION 12: Ecological information 12.1. Toxicity

denatonium benzoate (3734-33-6)	
> 1,000.00 mg/l (LC50; 96 h; Salmo gairdneri)	
13.00 mg/l (EC50; 48 h; Daphnia magna)	
> 10,000.00 mg/l (EC50; 24 h)	
40,761.00 mg/l (LC50; 96 h; Salmo gairdneri)	
diethylene glycol (111-46-6)	
> 5,000.00 mg/l (LC50; 24 h)	
> 10,000.00 mg/l (EC50; 24 h)	

12.2. Persistence and degradability

denatonium benzoate (3734-33-6)	
Persistence and degradability	Biodegradability in water: no data available. No (test) data on mobility of the substance available.
ethylene glycol (107-21-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.47 g O ₂ /g substance
Chemical oxygen demand (COD)	1.24 g O ₂ /g substance
ThOD	1.29 g O ₂ /g substance
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ethylene glycol (107-21-1)	
BOD (% of ThOD)	0.36
diethylene glycol (111-46-6)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.02 g O₂/g substance
Chemical oxygen demand (COD)	1.51 g O₂/g substance
ThOD	1.51 g O₂/g substance
BOD (% of ThOD) 0.02	

12.3. Bioaccumulative potential

denatonium benzoate (3734-33-6)		
BCF fish 1	1.4 - 3.6 (BCF; BCFBAF v3.00)	
Log Pow	1.78 (Estimated value)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
ethylene glycol (107-21-1)		
BCF fish 1	10.00 (BCF; 72 h)	
BCF other aquatic organisms 1	0.21 - 0.6 (BCF)	
BCF other aquatic organisms 2	190.00 (BCF; 24 h)	
Log Pow	-1.34 (Experimental value)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
diethylene glycol (111-46-6)		
BCF fish 1	100.00 (BCF; Other; 3 days; Leuciscus melanotus; Static system; Fresh water; Experimental value)	
Log Pow	-1.98 (Calculated; Other)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	

12.4. Mobility in soil

ethylene glycol (107-21-1)		
Surface tension	0.05 N/m (20 °C / 68 °F)	
diethylene glycol (111-46-6)		
Surface tension	0.05 N/m	
bg Koc Koc,SRC PCKOCWIN v1.66; 1; Calculated value; log Koc; SRC PCKOCWIN v1.66; 0; Calculated value		

12.5. Other adverse effects	
Effect on ozone layer	: No known effect on the ozone layer
Effect on global warming	: No known effects from this product.
Other information	: Avoid release to the environment.

SECTION 13: Disposal considerations		
13.1. Waste treatment methods		
Waste disposal recommendations	: Dispose of contents/container to appropriate waste disposal facility, in accordance with local/regional/national/international regulations.	
Ecology - waste materials	: Avoid release to the environment.	

SECTION 14: Transport information

Department of Transportation (DOT) In accordance with DOT		
Transport document description	: UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III	
UN-No.(DOT)	: UN3082	
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Proper Shipping Name (DOT)	: Environmentally hazardous substances, liquid, n.o.s.
Class (DOT)	: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT)	: III - Minor Danger
Hazard labels (DOT)	: 9 - Class 9 (Miscellaneous dangerous materials)
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
DOT Symbols	: G - Identifies PSN requiring a technical name
DOT Packaging Exceptions (49 CFR 173.xxx)	: 155
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: No limit
DOT Vessel Stowage Location	A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel
Other information	: Non Bulk: Not regulated by the US D.O.T. (in quantities under 5,000 lbs in any one inner package).

TDG

Refer to current TDG Canada for further Canadian regulations

Transport by sea

Proper Shipping Name (IMDG) : Not regulated by IMDG (in quantites under 5,000 lbs in any one inner package)

Air transport

Proper Shipping Name (IATA)

: Not regulated by IATA (in quantites under 5,000 lbs in any one inner package)

SECTION 15: Regulatory information			
15.1. US Federal regulations			
Blue Mountain Long Life Concentrate Antifu	reeze and Coolant		
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 United States TSCA (Toxic Substances Control Act) inventory			
ethylene glycol (107-21-1)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313			
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA		
CERCLA RQ	5000 lb(s)		
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard		
	Delayed (chronic) health hazard		
	Ethylene glycol is subject to Tier I 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 United States TSCA (Toxic Substances Control Act) inventory			
potassium 2-ethylhexanoate (3164-85-0)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory			

15.2. International regulations

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CANADA		
Blue Mountain Long Life Concentrate Antifreeze and Coolant		
WHMIS Classification This SDS has been prepared according to the criteria of the Hazardous Products Regula (HPR) (WHMIS 2015) and the SDS contains all of the information required by the HPR. Applicable GHS information is listed in section 2.2 of this SDS		

EU-Regulations

No additional information available

National regulations

Blue Mountain Long Life Concentrate Antifreeze and Coolant
DSL (Canada): The intentional ingredients of this product are listed
ECL (South Korea): The intentional ingredients of this product are listed
EINECS (Europe): The intentional ingredients of this product are listed
ENCS (Japan): The intentional ingredients of this product are listed

15.3. US State regulations

California Proposition 65 - This product contains, or may contain, substance(s) known to the state of California to cause cancer, developmental toxicity and/or reproductive toxicity

ethylene glycol (107-21-1)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	Yes	No	No	

ethylene glycol (107-21-1)
U.S Massachusetts - Right To Know List U.S New Jersey - Right to Know Hazardous Substance List U.S Pennsylvania - RTK (Right to Know) List
diethylene glycol (111-46-6)
U.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List

SECTION 16: Other information

Revision date

: 03/30/2016

Full text of H-statements:

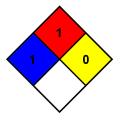
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated
	exposure

NFPA health hazard

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

NFPA fire hazard NFPA reactivity

- : 1 Must be preheated before ignition can occur.: 0 Normally stable, even under fire exposure conditions,
- and are not reactive with water.



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HMIS III Rating	
Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 °F (93 °C). (Class IIIB)
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal Protection	B - Safety glasses, Gloves

SDS GHS US (GHS HazCom 2012) OWI

Old World Industries, LLC makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Old World Industries, LLC as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, LLC assume liability arising out of the use by others of this product referred to herein. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.