

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 04/02/2018

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product form

: Mixture

Product name

PEAK Original Equipment Technology North American Vehicles Conventional GREEN

Concentrate Antifreeze and Coolant

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

: Antifreeze & Coolant

Details of the supplier of the safety data sheet

Old World Industries, LLC 3100 Sanders Road Northbrook, IL 60062 - USA T (847) 559-2000 www.oldworldind.com

1.4. Emergency telephone number

Emergency number

: 800 424 9300; 00 1 703 527 3887 (International)

Chemtrec

# **SECTION 2: Hazards identification**

#### Classification of the substance or mixture

#### **GHS-US** classification

Acute toxicity (oral),

H302

Harmful if swallowed

Category 4 Specific target organ

H373

May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)

toxicity - Repeated

exposure, Category 2

Full text of H statements: see section 16

# 2.2. Label elements

# **GHS-US labelling**

Hazard pictograms (GHS-US)



GHS07

GHS08

Signal word (GHS-US)

Hazard statements (GHS-US)

: H302 - Harmful if swallowed

H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral)

Precautionary statements (GHS-US)

: 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 local/regional/national/international regulations

# 2.3. Other hazards

No additional information available

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#### 2.4. Unknown acute toxicity (GHS US)

No data available

#### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Not applicable

#### 3.2. Mixtures

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	0.5 - 5	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
water	(CAS-No.) 7732-18-5	1 - 5	Not classified
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

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

#### **SECTION 4: First aid measures**

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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).

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 effects, both acute and delayed

Symptoms/effects

: Causes damage to organs (kidneys) Oral.

Symptoms/effects after skin contact

- : Causes skin irritation.
- Symptoms/effects after eye contact
- Causes serious eye damage.

Symptoms/effects 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: Fire-fighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media

: 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 substance 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.

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#### 5.3. Special protective equipment and precautions for fire-fighters

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.

# SECTION 6: Accidental release measures

#### 6.1. 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. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment 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

Hygiene measures

Do not eat, drink or smoke when using this product. Wash affected areas thoroughly after  $\overset{}{\text{\sc d}}$ 

handling.

# 7.2. Conditions for safe storage, including 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

# SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

ethylene glycol (10	ethylene glycol (107-21-1)					
ACGIH	Local name	Ethylene glycol				
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³				
ACGIH Ceiling (mg/m²)		100 mg/m³ (Ethylene glycol; USA; Momentary value; TLV - Adopted Value)				
ACGIH	Remark (ACGIH)	Upper respiratory tract & eye irritant				

### diethylene glycol (111-46-6)

Not applicable

# denatonium benzoate (3734-33-6)

Not applicable

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## water (7732-18-5)

Not applicable

#### 8.2. Appropriate engineering controls

No additional information available

#### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure, Gloves, Safety glasses.

#### Hand protection:

Wear protective gloves

#### Eye protection:

Chemical goggles or safety glasses

#### Respiratory protection:

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





#### Other information:

Explosive properties

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

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Physical state : Liquid Color : Green

Odor Mild

Odor threshold : No data available : 10.5 - 11

pH 50% water solution Relative evaporation rate (butylacetate=1) : Nil

Freezing point : -18 °C (0 °F)

: 158 °C (317 °F) Boiling point : 116 °C (241 °F) [100% Ethylene Glycol] ASTM D56 Flash point

: 400 °C (752 °F) [100% Ethylene Glycol] Literature Auto-ignition temperature

Decomposition temperature : No data available : No data available Flammability (solid, gas) : < 0.1 mm Hg @ 20 °C Vapor pressure : No data available Relative vapor density at 20 °C

Specific Gravity

: 1.12 kg/l (9.34 lbs/gal) Density Water: Complete Solubility : No data available Log Pow Log Kow : No data available : No data available Viscosity, kinematic No data available Viscosity, dynamic : No data available

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Oxidizing properties

: No data available

Explosive limits

: 3.2 - 15.3 vol %

9.2. Other information

VOC content

: 0%

# SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No dangerous reactions known under normal conditions 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 from any flames or sparking source

#### 10.5. Incompatible materials

Keep away from strong acids, strong bases and oxidizing agents.

#### 10.6. Hazardous decomposition products

alcohols. Carbon dioxide. Carbon monoxide. Fume. alcohols. Aldehydes. Ethers.

# SECTION 11: Toxicological information

# 11.1. Information on toxicological effects

Acute toxicity

: Oral: Harmful if swallowed

ethylene glycol (107-21-1)	
LD50 oral rat	> 5000 mg/kg (Rat; Literature study)
ATE US (oral)	500 mg/kg bodyweight
diethylene glycol (111-46-6)	
LD50 dermal rabbit	11890 mg/kg (Rabbit)
ATE US (oral)	500 mg/kg bodyweight
ATE US (dermal)	11890 mg/kg bodyweight
denatonium benzoate (3734-33-6	
LD50 oral rat	584 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Literature study)
ATE US (oral)	584 mg/kg bodyweight
Skin corrosion/irritation	: Not classified

Serious eve damage/irritation : Not classified Respiratory or skin sensitisation : Not classified Germ cell mutagenicity : Not classified : Not classified Carcinogenicity

: Not classified Reproductive toxicity 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 Potential adverse human health effects and : Not classified

symptoms

: Based on available data, the classification criteria are not met.

Symptoms/effects

: Causes damage to organs (kidneys) Oral.

Symptoms/effects after skin contact

: Causes skin irritation.

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Symptoms/effects after eye contact

: Causes serious eye damage.

Symptoms/effects 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

ethylene glycol (107-21-1)	
EC50 Daphnia 1	> 10,000.00 mg/l (EC50; 24 h)
LC50 fish 2	40,761.00 mg/l (LC50; 96 h; Salmo gairdneri)
diethylene glycol (111-46-6)	
LC50 fish 1	> 5,000.00 ppm (LC50; 24 h)
EC50 Daphnia 1	> 10,000.00 mg/l (EC50; 24 h)
denatonium benzoate (3734-33-6)	
LC50 fish 1	> 1,000.00 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 1	13.00 mg/l (EC50; 48 h; Daphnia magna)

#### 12.2. Persistence and degradability

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

## 12.3. Bioaccumulative potential

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).
denatonium benzoate (3734-33-6)	
Log Pow	1.78 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

# 12.4. Mobility in soil

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ethylene glycol (107-21-1)					
Surface tension	0.05 N/m (20 °C)				
diethylene glycol (111-46-6)	diethylene glycol (111-46-6)				
Surface tension	0.05 N/m				
Log 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 the ozone laver

: No known effect on the ozone layer

Other information

: Avoid release to the environment.

# SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging 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

Non Bulk (in quantities under 5,000 lbs in any one inner package):

Not regulated by the US DOT

Bulk (in quantities 5,000 lbs or over in any one inner package):

Transport document description

: UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III

UN-No.(DOT)

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 : G - Identifies PSN requiring a technical name

**DOT Symbols** 

DOT Packaging Exceptions (49 CFR 173.xxx)

DOT Quantity Limitations Passenger aircraft/rail : No limit

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : No limit

CFR 175.75)

**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

: No supplementary information available.

# **Transportation of Dangerous Goods**

# Refer to current TDG Canada for further Canadian regulations

# Transport by sea

In accordance with IMDG / IMO

Proper Shipping Name (IMDG)

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

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#### Air transport

In accordance with IATA / ICAO

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

PEAN Original Equipment rechnology North American Vehicle	s Conventional GREEN Concentrate Antifreeze and Coolant
EPA TSCA Regulatory Flag	Toxic Substances Control Act (TSCA): The intentional ingredients of this
	product are listed

Listed on the United States TSCA (Toxic Substances Control Act) inventory				
s SARA Section 313				
T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.				
5000 lb(s)				
Immediate (acute) health hazard				
Delayed (chronic) health hazard				
Ethylene glycol is subject to Tier I and/or Tier II annual inventory 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

#### denatonium benzoate (3734-33-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. International regulations

# CANADA

PEAK Original Equipment Technology North American Vehicles Conventional GREEN Concentrate Antifreeze and Coolant		
WHMIS Classification	This SDS has been prepared according to the criteria of the Hazardous Products Regulations (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**

# PEAK Original Equipment Technology North American Vehicles Conventional GREEN Concentrate Antifreeze and Goolant

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

# **M** WARNING

This product can expose you to ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
No	Yes	No	No	-	

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# 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**

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#### Full text of H-statements:

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H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure
	exposure

NFPA health hazard

: 1 - Materials that, under emergency conditions, can cause significant

irritation

NFPA fire hazard

: 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire

conditions.



Hazard 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

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