


## 1. Identification

<b>Product identifier</b>	<b>PolarZone™ Global HD Antifreeze/Coolant Concentrate</b>		
<b>Other means of identification</b>	NM0064-053019		
<b>Recommended use</b>	Heavy-duty vehicle engine antifreeze/coolant		
<b>Recommended restrictions</b>	Not for food, drug, or household use.		
<b>Manufacturer/Importer/Supplier/Distributor information</b>			
<b>Manufacturer</b>			
<b>Company name</b>	Nemco Resources Ltd		
<b>Address</b>	25 Midland Street Winnipeg, MB R3E 3J6 Canada		
<b>Telephone</b>	Phone:	204-788-1030	
	Fax:	204-788-1593	
	Toll Free:	855-755-6737 (M-F 8am-4:30pm)	
<b>Website</b>	www.nemco.ca/msds-safety-information		
<b>E-mail</b>	info@nemco.ca		
<b>Emergency phone number</b>	NEMCO:	855-755-6737 (M-F 8am-4:30pm)	
<b>Supplier</b>	See above.		

## 2. Hazard identification

<b>Physical hazards</b>	Not classified.		
<b>Health hazards</b>	Reproductive toxicity	Category 1B	
	Specific target organ toxicity following repeated exposure	Category 1	
<b>Environmental hazards</b>	Not classified.		
<b>Label elements</b>			
<b>Signal word</b>	Danger		
<b>Hazard statement</b>	May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.		
<b>Precautionary statement</b>			
<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapour. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves, protective clothing, eye protection and face protection.		
<b>Response</b>	IF exposed or concerned: Get medical attention.		
<b>Storage</b>	Store locked up.		
<b>Disposal</b>	Dispose of container in accordance with local, regional, national and international regulations.		
<b>Other hazards</b>	None known.		
<b>Supplemental information</b>	None.		

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Ethylene glycol		107-21-1	80-100
Potassium P-tert-butylbenzoate		16518-26-6	5-10

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**Composition comments** CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.

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#### 4. First-aid measures

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<b>Inhalation</b>	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
<b>Skin contact</b>	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
<b>Eye contact</b>	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious or is convulsing. Obtain medical attention.
<b>Most important symptoms/effects, acute and delayed</b>	Dizziness. Nausea, vomiting. Prolonged exposure may cause chronic effects.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
<b>General information</b>	IF exposed or concerned: Get medical attention. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

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#### 5. Fire-fighting measures

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<b>Suitable extinguishing media</b>	Foam. Water fog. Dry chemical. Carbon dioxide.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

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#### 6. Accidental release measures

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<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
<b>Environmental precautions</b>	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

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#### 7. Handling and storage

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<b>Precautions for safe handling</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. When using do not eat or drink.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

## 8. Exposure controls/Personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	STEL	10 mg/m3	Aerosol, inhalable.
		50 ppm	Vapor fraction
	TWA	25 ppm	Vapor fraction

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	Ceiling	100 mg/m3	

#### Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	Ceiling	100 mg/m3	Aerosol
		50 ppm	Vapour.
	STEL	20 mg/m3	Particulate.
	TWA	10 mg/m3	Particulate.

#### Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	STEL	10 mg/m3	Aerosol, inhalable.
		50 ppm	Vapor fraction
	TWA	25 ppm	Vapor fraction

#### Canada. New Brunswick OELs: Threshold Limit Values (TLVs) Based on the 2016 ACGIH TLVs and BEIs Publication (New Brunswick Regulation 91-191), as amended

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	Ceiling	100 mg/m3	Aerosol

#### Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	STEL	10 mg/m3	Aerosol, inhalable.

#### Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	Ceiling	127 mg/m3	Vapor and mist.
		50 ppm	Vapor and mist.

#### Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value	Form
Ethylene glycol (CAS 107-21-1)	Ceiling	100 mg/m3	Aerosol

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses with side shields (or goggles).

#### Skin protection

##### Hand protection

Impervious gloves. Confirm with reputable supplier first.

##### Other

Wear appropriate chemical resistant clothing. As required by employer code.

<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).
<b>Thermal hazards</b>	Not applicable.
<b>General hygiene considerations</b>	Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practices. When using do not eat or drink.

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## 9. Physical and chemical properties

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<b>Appearance</b>	Clear Liquid
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Colour</b>	Dark yellow.
<b>Odour</b>	Mild
<b>Odour threshold</b>	Not available.
<b>pH</b>	8 - 9
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	> 180 °C (> 356 °F)
<b>Flash point</b>	111.0 °C (231.8 °F)
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Relative density</b>	1.124
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Soluble
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidising properties</b>	Not oxidising.

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## 10. Stability and reactivity

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<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Do not mix with other chemicals.
<b>Incompatible materials</b>	Strong oxidising agents.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon.

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## 11. Toxicological information

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### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
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<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
<b>Ingestion</b>	May cause stomach distress, nausea or vomiting.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Dizziness. Nausea, vomiting.

#### Information on toxicological effects

**Acute toxicity** See below.

Components	Species	Test Results
Ethylene glycol (CAS 107-21-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Mouse	> 3500 mg/kg, ECHA
<i>Inhalation</i>		
LC50	Rat	> 2.5 mg/L, 6 Hours, ECHA
<i>Oral</i>		
LD50	Rat	7712 mg/kg, ECHA

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Exposure minutes** Not available.

**Erythema value** Not available.

**Oedema value** Not available.

**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

**Corneal opacity value** Not available.

**Iris lesion value** Not available.

**Conjunctival reddening value** Not available.

**Conjunctival oedema value** Not available.

**Recover days** Not available.

#### Respiratory or skin sensitisation

##### Canada - Alberta OELs: Irritant

Ethylene glycol (CAS 107-21-1) Irritant

**Respiratory sensitisation** Not a respiratory sensitizer.

**Skin sensitisation** This product is not expected to cause skin sensitisation.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** See below.

**Reproductive toxicity** May damage fertility or the unborn child.

**Specific target organ toxicity - single exposure** Not classified.

**Specific target organ toxicity - repeated exposure** Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Prolonged inhalation may be harmful.

**Further information** Not available.

## 12. Ecological information

**Ecotoxicity** See below

#### Ecotoxicological data

Components	Species	Test Results
Ethylene glycol (CAS 107-21-1)		
Crustacea	EC50 Daphnia	46300 mg/L, 48 Hours
<b>Aquatic</b>		
Fish	LC50 Fathead minnow ( <i>Pimephales promelas</i> )	8050 mg/L, 96 hours

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

**Bioaccumulative potential****Mobility in soil** No data available.**Mobility in general** Not available.**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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**13. Disposal considerations**

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**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of container in accordance with local, regional, national and international regulations.**Local disposal regulations** Dispose in accordance with all applicable regulations.**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.**Waste from residues / unused products** Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

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**14. Transport information**

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**General** Canada: TDG Proof of Classification: Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.**Transportation of Dangerous Goods (TDG - Canada)**

Not regulated as dangerous goods.

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**15. Regulatory information**

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**Canadian federal regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.**Canada Priority Substances List (Second List): Listed substance**

Ethylene glycol (CAS 107-21-1) Listed.

**Export Control List (CEPA 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Not regulated.

**WHMIS status** Hazardous**International regulations****Inventory status**

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

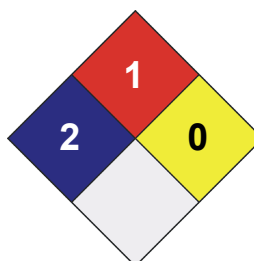
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**16. Other information**

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LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

<b>HEALTH</b>	*	2
<b>FLAMMABILITY</b>		1
<b>PHYSICAL HAZARD</b>		0
<b>PERSONAL PROTECTION</b>		X

**Issue date** 06-October-2022**Revision date** 06-October-2022**Version No.** 01**Other information** For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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