


1. Identification

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| Product identifier | PolarZone™ Universal Antifreeze/Coolant Prediluted | | |
| Other means of identification | NM0675-031120 | | |
| Recommended use | Gasoline and light-duty truck engine antifreeze/coolant | | |
| Recommended restrictions | None known. | | |
| Manufacturer/Importer/Supplier/Distributor information | | | |
| Manufacturer | | | |
| Company name | Nemco Resources Ltd | | |
| Address | 25 Midland Street Winnipeg, MB R3E 3J6 Canada | | |
| Telephone | Phone: | 204-788-1030 | |
| | Fax: | 204-788-1593 | |
| | Toll Free: | 855-755-6737 (M-F 8am-4:30pm) | |
| Website | www.nemco.ca/msds-safety-information | | |
| E-mail | info@nemco.ca | | |
| Emergency phone number | NEMCO: | 855-755-6737 (M-F 8am-4:30pm) | |
| Supplier | See above. | | |

2. Hazard identification

| | | |
|---------------------------------|---|-------------|
| Physical hazards | Not classified. | |
| Health hazards | Acute toxicity, oral | Category 4 |
| | Reproductive toxicity | Category 1B |
| | Specific target organ toxicity following repeated exposure | Category 2 |
| Environmental hazards | Not classified. | |
| Label elements |  | |
| Signal word | Danger | |
| Hazard statement | Harmful if swallowed. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. | |
| Precautionary statement | | |
| Prevention | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves, protective clothing, eye protection and face protection. Do not breathe mist or vapour. | |
| Response | IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. IF exposed or concerned: Get medical attention. | |
| Storage | Store locked up. | |
| Disposal | Dispose of container in accordance with local, regional, national and international regulations. | |
| Other hazards | None known. | |
| Supplemental information | None. | |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--------------------|--------------------------|------------|--------|
| Ethylene glycol | | 107-21-1 | 30-60* |
| Sodium tetraborate | | 1330-43-4 | 0.1-1* |

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 in accordance with the amended HPR as of April 2018.

4. First-aid measures

| | |
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| Inhalation | If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention. |
| Skin contact | Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists. |
| Eye contact | Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists. |
| Ingestion | IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. |
| Most important symptoms/effects, acute and delayed | Dizziness. Nausea, vomiting. Abdominal pain. Prolonged exposure may cause chronic effects. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Symptoms may be delayed. |
| General information | 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. Wash contaminated clothing before reuse. Avoid contact with eyes and skin. Keep out of reach of children. |

5. Fire-fighting measures

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

6. Accidental release measures

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| Personal precautions, protective equipment and emergency procedures | 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. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
| Methods and materials for containment and cleaning up | Use water spray to reduce vapours or divert vapour cloud drift. 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. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters. |

7. Handling and storage

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| Precautions for safe handling | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. |
| Conditions for safe storage, including any incompatibilities | 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/m ³ | Aerosol, inhalable. |
| | | 50 ppm | Vapor fraction |
| Sodium tetraborate (CAS 1330-43-4) | TWA | 25 ppm | Vapor fraction |
| | STEL | 6 mg/m ³ | Inhalable fraction. |
| | TWA | 2 mg/m ³ | Inhalable fraction. |

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

| Components | Type | Value |
|------------------------------------|---------|-----------------------|
| Ethylene glycol (CAS 107-21-1) | Ceiling | 100 mg/m ³ |
| Sodium tetraborate (CAS 1330-43-4) | STEL | 3 ppm |
| | TWA | 1 mg/m ³ |

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/m ³ | Aerosol |
| | | 50 ppm | Vapour. |
| | STEL | 20 mg/m ³ | Particulate. |
| Sodium tetraborate (CAS 1330-43-4) | TWA | 10 mg/m ³ | Particulate. |
| | STEL | 6 mg/m ³ | Inhalable |
| | TWA | 2 mg/m ³ | Inhalable |

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/m ³ | Aerosol, inhalable. |
| | | 50 ppm | Vapor fraction |
| | TWA | 25 ppm | Vapor fraction |
| Sodium tetraborate (CAS 1330-43-4) | STEL | 6 mg/m ³ | Inhalable fraction. |
| | TWA | 2 mg/m ³ | Inhalable fraction. |

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

| Components | Type | Value | Form |
|------------------------------------|------|----------------------|---------------------|
| Ethylene glycol (CAS 107-21-1) | STEL | 10 mg/m ³ | Aerosol, inhalable. |
| Sodium tetraborate (CAS 1330-43-4) | STEL | 6 mg/m ³ | Inhalable fraction. |
| | TWA | 2 mg/m ³ | Inhalable fraction. |

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/m ³ | Vapor and mist. |
| | | 50 ppm | Vapor and mist. |
| Sodium tetraborate (CAS 1330-43-4) | TWA | 1 mg/m ³ | |

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

| Components | Type | Value | Form |
|--------------------------------|---------|-----------------------|---------|
| Ethylene glycol (CAS 107-21-1) | Ceiling | 100 mg/m ³ | Aerosol |

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

| Components | Type | Value | Form |
|--|---|---------|---------------------|
| Sodium tetraborate (CAS 1330-43-4) | 15 minute | 6 mg/m3 | Inhalable fraction. |
| | 8 hour | 2 mg/m3 | Inhalable fraction. |
| 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. | | |
| Skin protection | | | |
| Hand protection | Impervious gloves. Confirm with reputable supplier first. | | |
| Other | Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. As required by employer code. | | |
| Respiratory protection | 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). | | |
| Thermal hazards | Not applicable. | | |
| General hygiene considerations | Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. When using do not eat or drink. | | |

9. Physical and chemical properties

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|---|-----------------------------|
| Appearance | Clear |
| Physical state | Liquid. |
| Form | Liquid. |
| Colour | Green |
| Odour | Mild |
| Odour threshold | Not available. |
| pH | 10 - 11 |
| Melting point/freezing point | -37, -52°C (-34.6, -61.6°F) |
| Initial boiling point and boiling range | 107 °C (224.6 °F) |
| Flash point | None to boiling |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not applicable. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Explosive limit - lower (%) | Not available. |
| Explosive limit - upper (%) | Not available. |
| Vapour pressure | Not available. |
| Vapour density | Not available. |
| Relative density | 1.07, 1.09 |
| Solubility(ies) | |
| Solubility (water) | Soluble |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | 2.13 cSt @ 40°C |

Other information

| | |
|-----------------------------|----------------|
| Explosive properties | Not explosive. |
| Oxidising properties | Not oxidising. |

10. Stability and reactivity

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|---|---|
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Do not mix with other chemicals. |
| Incompatible materials | Strong oxidising agents. |
| Hazardous decomposition products | May include and are not limited to: Oxides of carbon. Oxides of nitrogen. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|---|
| Inhalation | Prolonged inhalation may be harmful. |
| Skin contact | Not expected to be a primary skin irritant. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Ingestion | Harmful if swallowed. May cause stomach distress, nausea or vomiting. |

Symptoms related to the physical, chemical and toxicological characteristics Dizziness. Nausea, vomiting. Abdominal pain. Dermatitis.

Information on toxicological effects

Acute toxicity Harmful if swallowed.

| Components | Species | Test Results |
|--|--|--------------------------------|
| Ethylene glycol (CAS 107-21-1) | | |
| Acute | | |
| <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 | Cat | 1670 mg/kg, CCID - New Zealand |
| | Human | 1110 - 1665 mg/kg, HSDB |
| | Rat | 7712 mg/kg, ECHA |
| Sodium tetraborate (CAS 1330-43-4) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | > 2000 mg/kg, 24 Hours, ECHA |
| <i>Inhalation</i> | | |
| LC50 | Rat | > 2 mg/L, 4 Hours, ECHA/HSDB |
| <i>Oral</i> | | |
| LD50 | Rat | 3305 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 |
| Sodium tetraborate (CAS 1330-43-4) | Irritant |
| Respiratory sensitisation | Not a respiratory sensitizer. |
| Skin sensitisation | Not classified. |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| Carcinogenicity | Not classified. |
| Reproductive toxicity | May damage fertility or the unborn child. |
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | Not an aspiration hazard. |
| Chronic effects | May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated exposure can cause kidney damage. |
| Further information | Not available. |

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. See below

Ecotoxicological data

| Components | Species | Test Results |
|--------------------------------------|---|--|
| Ethylene glycol (CAS 107-21-1) | | |
| Crustacea | EC50 | Daphnia |
| Aquatic | | 46300 mg/L, 48 Hours |
| Fish | LC50 | Fathead minnow (<i>Pimephales promelas</i>) |
| | | 8050 mg/L, 96 hours |
| Sodium tetraborate (CAS 1330-43-4) | | |
| Aquatic | | |
| Fish | LC50 | Western mosquitofish (<i>Gambusia affinis</i>) |
| | | 104 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. | |

13. Disposal considerations

| | |
|--|--|
| Disposal instructions | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/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 | Dispose of in accordance with local regulations. 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. |

14. Transport information

| | |
|---|---|
| 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. |

15. Regulatory information

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

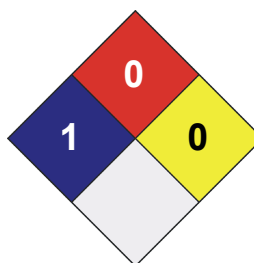
| Country(s) or region | Inventory name | On inventory (yes/no)* |
|----------------------|-------------------------------------|------------------------|
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |

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

16. Other information

| LEGEND | |
|----------|---|
| Severe | 4 |
| Serious | 3 |
| Moderate | 2 |
| Slight | 1 |
| Minimal | 0 |

| | |
|----------------------------|-----|
| HEALTH | * 1 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | X |



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Other information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available. 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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