Section I. Chemical Product and Company Identification

Product Name: ANTIFREEZE
Code: W269


Manufacturer: PETRO-CANADA
P.O. Box 2844
Calgary, Alberta
T2P 3E3

Material Uses: Used as an engine antifreeze coolant.

In case of Emergency:
Petro-Canada: 403-296-3000
Canutec Transportation: 613-996-6666
Poison Control Centre: Consult local telephone directory for emergency number(s).

Section II. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% (V/V)</th>
<th>TLV-TWA(8 h)</th>
<th>STEL</th>
<th>CEILING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Ethylene glycol</td>
<td>107-21-1</td>
<td>≥55</td>
<td>Not established</td>
<td>Not established</td>
<td>100 mg/m³ (aerosol)</td>
</tr>
<tr>
<td>2) Sodium tetraborate pentahydrate</td>
<td>1330-43-4</td>
<td>≤5</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
</tr>
</tbody>
</table>

Other Exposure Limits: Consult local, state, provincial or territory authorities for acceptable exposure limits.

Section III. Hazards Identification

Potential Health Effects: Contact can cause slight irritation of skin, eyes and respiratory tract. Extremely dangerous in case of ingestion. For more information, refer to Section 11.

Section IV. First Aid Measures

Eye Contact: IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention.

Skin Contact: Remove contaminated clothing - launder before reuse. Wash gently and thoroughly the contaminated skin with running water and non-abrasive soap. Seek medical attention.

Inhalation: Evacuate the victim to a safe area as soon as possible. If the victim is not breathing, perform artificial respiration. Allow the victim to rest in a well ventilated area. Seek medical attention.

Ingestion: DO NOT induce vomiting because of danger of aspirating liquid into lungs. Seek medical attention.

Note to Physician: Not available

Section V. Fire-fighting Measures

Flammability: May be combustible at high temperature.

Flammable Limits: Lower: 3.2%, Upper: 15.3% (aerosol)

Flash Points: Closed Cup: 116°C (Tagliabue) Open Cup: 116°C (Cleveland)

Auto-Ignition Temperature: 413°C

Fire Hazards in Presence of Various Substances: Combustible in presence of open flames and sparks.


Products of Combustion: Carbon oxides (CO, CO2), smoke and irritating vapours as products of incomplete combustion.

Fire Fighting Media and Instructions:
- SMALL FIRE: Use DRY chemicals, CO2, water spray or foam.
- LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.

Continued on Next Page
Section VI. Accidental Release Measures

Material Release or Spill
Small spill or leak: Dilute with water and mop up or absorb with an inert DRY material and place in an appropriate waste disposal container.
Large spill or leak: Absorb with an inert material and put the spilled material in an appropriate waste disposal. Dispose of in accordance with regional regulations.

Section VII. Handling and Storage

Handling
Avoid contamination with reactive substances. After handling, always wash hands thoroughly with soap and water.

Storage
Keep container dry. Keep container tightly closed. Keep in a cool, well-ventilated place.

Section VIII. Exposure Controls/Personal Protection

Engineering Controls
For normal application, special ventilation is not necessary. If user's operations generate vapours or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Make-up air should always be supplied to balance air removed by exhaust ventilation. Ensure that eyewash station and safety shower are close to work-station.

Personal Protection - The selection of personal protective equipment varies, depending upon conditions of use.

Eyes
Eye protection (i.e., safety glasses, safety goggles and/or face shield) should be determined based on conditions of use. If product is used in an application where splashing may occur, the use of safety goggles and/or a face shield should be considered.

Body
Wear appropriate clothing to prevent skin contact. As a minimum long sleeves and trousers should be worn.

Respiratory
Where concentrations in air may exceed the occupational exposure limits given in Section 2 (and those applicable to your area) and where engineering, work practices or other means of exposure reduction are not adequate, NIOSH approved respirators may be necessary to prevent overexposure by inhalation.

Hands
Wear appropriate chemically protective gloves. When handling hot product ensure gloves are heat resistant and insulated.

Feet
Wear appropriate footwear to prevent product from coming in contact with feet and skin.

Section IX. Physical and Chemical Properties

Physical State and Appearance
Clear viscous liquid.

Viscosity
Not available

Colour
Green.

Odour
Odourless.

Odour Threshold
Not available

Boiling Point
129 to 197°C (264 to 387°F)

Pour Point
Not available

Density
1.115 to 1.145 (Water = 1)

Softening Point
Not applicable.

Vapour Density
2.1 (Air = 1).

Dispersion Properties
Not applicable

Viscosity
Not available

Viscosity
Not available

Vapour Pressure
0.06 mmHg @ 20°C (68°F).

Dropping Point
Not applicable.

Dropping Point
Not applicable.

Dropping Point
Not applicable.

Dropping Point
Not applicable.

Vapour Pressure
Not available

Vapour Pressure
Not available

Vapour Pressure
Not available

Vapour Pressure
Not available

Solubility
Soluble in water, methanol and diethyl ether.

Section X. Stability and Reactivity

Corrosivity
Not available

Stability
The product is stable.

Hazardous Polymerization
Will not occur under normal working conditions.

Incompatible Substances / Conditions to Avoid
Reactive with oxidizing agents, acids and alkalis.

Decomposition Products
May release CO<sub>x</sub>, smoke and irritating vapours when heated to decomposition.

Section XI. Toxicological Information

Routes of Entry
Eye contact and ingestion.

LD<sub>50</sub>: 4700 mg/kg (oral/rat). [Ethylene Glycol]
LD<sub>50</sub>: 9530 mg/kg (dermal/rabbit). [Ethylene Glycol]

Chronic or Other Toxic Effects

Dermal Route:
Slightly hazardous in case of skin contact (irritant).

Inhalation Route:
Slightly hazardous in case of inhalation (lung irritant). Can cause nausea, headaches and vomiting.

Oral Route:
Extremely dangerous in case of ingestion.

Eye Irritation/Inflammation:
Slightly hazardous in case of eye contact (irritant).

Immunotoxicity:
Not available

Skin Sensitization:
Not available

Respiratory Tract Sensitization:
Not available

Mutagenic:
Not available

Continued on Next Page
Other Considerations

The substance may be toxic to kidneys and liver. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section XII. Ecological Information

<table>
<thead>
<tr>
<th>Environmental Fate</th>
<th>Persistance/ Bioaccumulation Potential</th>
<th>BOD5 and COD</th>
<th>Products of Biodegradation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available</td>
<td></td>
<td>Not available</td>
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</tr>
</tbody>
</table>

Additional Remarks

No additional remark.

Section XIII. Disposal Considerations

Waste Disposal

Preferred waste management priorities are: (1) recycle or reprocess; (2) incineration with energy recovery; (3) disposal at licensed waste disposal facility. Ensure that disposal or reprocessing is in compliance with government requirements and local disposal regulations. Consult your local or regional authorities.

Section XIV. Transport Information

DOT Classification

Not a DOT controlled material (United States). Special Provisions for Transport

Not applicable.

Section XV. Regulatory Information

Other Regulations

This product is acceptable for use under the provisions of WHMIS-CPR. All components of this formulation are listed on the CEPA-DSL (Domestic Substances List).

All components of this formulation are listed on the US EPA-TSCA Inventory.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

Please contact Product Safety for more information.

DSD/DPD (EEC)

Not evaluated.

WHMIS (Canada) D-2A

ADR (Europe) (Pictograms)

Not evaluated for European Transport

TDG (Canada) (Pictograms)

Section XVI. Other Information

References

Available upon request.

Marque de commerce de Petro-Canada - Trademark

Glossary

ACGIH - American Conference of Governmental Industrial Hygienists
ADR - Agreement on Dangerous goods by Road (Europe)
ASTM - American Society for Testing and Materials
BOD5 - Biological Oxygen Demand in 5 days
CAN/CGA B149.2 - Propane Installation Code
CAS - Chemical Abstract Services
CEPA - Canadian Environmental Protection Act
CERCLA - Comprehensive Environmental Response, Compensation and Liability Act
CFR - Code of Federal Regulations
CHIP - Chemicals Hazard Information and Packaging Approved Supply List
COD5 - Chemical Oxygen Demand in 5 days
CPR - Controlled Products Regulations
DOT - Department of Transport
DSCL - Dangerous Substances Classification and Labeling (Europe)
DSD/DPD - Dangerous Substances or Dangerous Preparations Directives (Europe)
DSL - Domestic Substance List
EEC/EU - European Economic Community/European Union
EINECS - European Inventory of Existing Commercial Chemical Substances
EPCRA - Emergency Planning and Community Right to Know Act
IRIS - Integrated Risk Information System
LD50/LC50 - Lethal Dose/Concentration kill 50%
LDLo/LCLo - Lowest Published Lethal Dose/Concentration
LDLo/LCLo - Lowest Published Toxic Dose/Concentration
LHAFC - Low Hazard and Farm Chemicals
MDL - Method Detection Limit
NAFPA - National Fire Prevention Association
NPAA - National Pollutant Release Inventory
NIOSH - National Institute for Occupational Safety & Health
NTP - National Toxicology Program
OSHA - Occupational Safety & Health Administration
PEL - Permissible Exposure Limit
RCRA - Resource Conservation and Recovery Act
SARA - Superfund Amendments and Reorganization Act
SD - Single Dose
STEL - Short Term Exposure Limit (15 minutes)
TDLo/TCLo - Lowest Published Toxic Dose/Concentration
Tf - Temperature
Tm - Median Tolerance Limit
TLV-TWA - Threshold Limit Value-Time Weighted Average
TSCA - Toxic Substances Control Act
USEPA - United States Environmental Protection Agency

Continued on Next Page Available in French
| FDA - Food and Drug Administration | WHMIS - Workplace Hazardous Material Information System |
| FIFRA - Federal Insecticide, Fungicide and Rodenticide Act | USP - United States Pharmacopoeia |
| HCS - Hazardous Communication System | |
| HMIS - Hazardous Material Information System | |
| IARC - International Agency for Research on Cancer | |

For Copy of MSDS
Western Canada, telephone: 403-296-4158; fax: 403-296-6551
Ontario & Central Canada, telephone: 1-800-668-0220; fax: 1-800-837-1228
Quebec & Eastern Canada, telephone: 514-640-8308; fax: 514-640-8385

For Product Safety Information: (905) 804-4752

Data entry by Product Safety - JDW.

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