

1. Identification

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|---|--|-------------------------------|--|
| Product identifier | RV & Marine Winterizer Standard | | |
| Other means of identification | 0730-15334 | | |
| Recommended use | Recreational vehicle and equipment plumbing antifreeze | | |
| Recommended restrictions | Not for food, drug, or household use. | | |
| 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 | Flammable liquids | Category 3 |
| Health hazards | Serious eye damage/eye irritation | Category 2 |
| Environmental hazards | Not classified. | |

Label elements



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|---------------------------------|--|
| Signal word | Warning |
| Hazard statement | Flammable liquid and vapour. Causes serious eye irritation. |
| Precautionary statement | |
| Prevention | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wash thoroughly after handling. Wear protective gloves, protective clothing and eye protection. |
| Response | In case of fire: Use appropriate media to extinguish. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. |
| Storage | Store in a well-ventilated place. Keep cool. |
| 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 | % |
|---------------|--------------------------|------------|--------|
| Ethanol | | 64-17-5 | 10-30* |

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.

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 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| Eye contact | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. |
| Ingestion | 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. |
| Most important symptoms/effects, acute and delayed | Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Symptoms may be delayed. |
| General information | Take off all contaminated clothing immediately. 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 | Carbon dioxide. Dry chemical powder. Alcohol resistant foam. Water fog. |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed. |
| Hazardous combustion products | May include and are not limited to: Oxides of carbon. |
| 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 | In case of fire and/or explosion do not breathe fumes. 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 | Flammable liquid and vapour. |

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. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. 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 | <p>Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer, basements or confined areas.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.</p> <p>Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> |
| Environmental precautions | 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. |

7. Handling and storage

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| Precautions for safe handling | Avoid contact with eyes, skin and clothing. When using do not eat or drink. Avoid breathing mists or vapours. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid prolonged exposure. 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 | Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. 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 |
|-----------------------|------|----------|
| Ethanol (CAS 64-17-5) | STEL | 1000 ppm |

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

| Components | Type | Value |
|-----------------------|------|------------------------------------|
| Ethanol (CAS 64-17-5) | TWA | 1880 mg/m ³ 1000 ppm |

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

| Components | Type | Value |
|-----------------------|------|----------|
| Ethanol (CAS 64-17-5) | STEL | 1000 ppm |

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

| Components | Type | Value |
|-----------------------|------|----------|
| Ethanol (CAS 64-17-5) | STEL | 1000 ppm |

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

| Components | Type | Value |
|-----------------------|------|----------|
| Ethanol (CAS 64-17-5) | STEL | 1000 ppm |

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

| Components | Type | Value |
|-----------------------|------|------------------------------------|
| Ethanol (CAS 64-17-5) | TWA | 1880 mg/m ³ 1000 ppm |

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

| Components | Type | Value |
|-----------------------|-----------|----------|
| Ethanol (CAS 64-17-5) | 15 minute | 1250 ppm |
| | 8 hour | 1000 ppm |

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.

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

When using do not smoke. 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. When using do not eat or drink.

9. Physical and chemical properties

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|---|------------------------------|
| Appearance | Liquid |
| Physical state | Liquid. |
| Form | Liquid. |
| Colour | Pink |
| Odour | Alcohol |
| Odour threshold | Not available. |
| pH | 7.5 - 8.5 |
| Melting point/freezing point | -50 °C (-58 °F) (burst) |
| Initial boiling point and boiling range | Not available. |
| Flash point | 35.0 °C (95.0 °F) Closed cup |
| 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 | 0.98 |
| Solubility(ies) | |
| Solubility (water) | Complete |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| 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. Acids. Caustics. |
| Hazardous decomposition products | May include and are not limited to: Oxides of carbon. |

11. Toxicological information

Information on likely routes of exposure

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|---------------------|--|
| Inhalation | Prolonged inhalation may be harmful. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | May cause stomach distress, nausea or vomiting. |

Symptoms related to the physical, chemical and toxicological characteristics Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing.

Information on toxicological effects

Acute toxicity Not known.

| Components | Species | Test Results |
|-----------------------|---------|---|
| Ethanol (CAS 64-17-5) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | > 15800 mg/kg, SIDS initial assessment report |
| <i>Inhalation</i> | | |
| LC50 | Mouse | > 60000 ppm, 60 Minutes, ECHA |
| <i>Oral</i> | | |
| LD50 | Rat | 10470 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 Causes serious eye 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

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 Non-hazardous by WHMIS criteria. See below.

Ethanol is not considered to be a carcinogenic component for this product. The product is not an alcoholic beverage for consumption.

IARC Monographs. Overall Evaluation of Carcinogenicity

Ethanol (CAS 64-17-5) Volume 44, Volume 96, Volume 100E
Volume 96, Volume 100E

Reproductive toxicity Possible reproductive hazard if ingested intentionally.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

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 |
| Ethanol (CAS 64-17-5) | | | |
| Crustacea | EC50 | Daphnia | 11744.5 mg/L, 48 Hours |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 7.7 - 11.2 mg/L, 48 hours |

| Components | Species | Test Results |
|--------------------------------------|---|--|
| Fish | LC50 | Fathead minnow (<i>Pimephales promelas</i>) > 100 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

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|--|--|
| 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

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| General | <p>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.</p> <p>Class 3, Flammable Liquids, Alcoholic Beverage and Aqueous Solution of Alcohol Exemption: Part 3 (Documentation), Part 4 (Dangerous Goods Safety Marks), Part 5 (Means of Containment), Part 6 (Training), Part 7 (Emergency Response Assistance Plan), Part 8 (Reporting Requirements), Part 9 (Road) and Part 10 (Rail) do not apply to the handling, offering for transport or transporting on a road vehicle, a railway vehicle or a vessel on a domestic voyage of (b) an aqueous solution of alcohol if the aqueous solution has a flash point greater than 23°C and (i) contains alcohol that is less than or equal to 50% by volume and at least 50% by volume of a substance that is not dangerous goods, and (ii) is contained in a small means of containment.</p> |
|----------------|--|

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

| | |
|-----------------------------|------------------|
| UN number | UN1987 |
| Proper shipping name | ALCOHOLS, N.O.S. |
| Technical name | Ethanol |
| Hazard class | 3 |
| Packing group | III |
| Special provisions | 16 |

TDG



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 NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number | Ethanol (CAS 64-17-5) | 1 TONNES |
| 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**

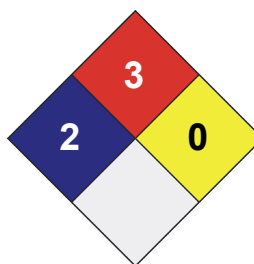
| Country(s) or region | Inventory name | On inventory (yes/no)* |
|----------------------|-------------------------------------|------------------------|
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | Yes |

*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 | / 2 |
| FLAMMABILITY | 3 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | X |

**Issue date** 15-September-2021**Revision date** 15-September-2021**Version No.** 01**Other information** For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

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