

SECTION 1: IDENTIFICATION

Product trade name	LAUNCHER Supreme Antifreeze/Coolant Premix
Company Identification	LAUNCHER AUTOMOTIVE (13893031 Canada Inc.) 55 Village Centre Pl, Suite 200, Mississauga, ON L4Z 1V9, Canada
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SECTION 2: Hazard Identification

Eyes	Contact with eyes may cause minimal irritation, but practically non-irritating.
Skin contact	Avoid skin contact. This product is slightly irritating. Repeated or prolonged contact with the skin could cause redness, itching, inflammation or cracking. Symptoms may include discolouration, swelling or a feeling of heat. Secondary infection. Avoid prolonged and/or repeated skin contact with used motor oils.
Inhalation	Low toxicity. If less than one ounce is ingested, material may pass through the system without harm. On ingestion of large quantities, slight GI discomfort, diarrhea and headaches may occur.
Ingestion	Low risk at ambient temperature. Prolonged breathing of vapour can cause headache, dizziness, nausea, respiratory irritation or chemical pneumonitis.
Medical conditions aggravated by exposure	Pre-existing dermatitis may be aggravated.

SECTION 3: COMPOSITION OF INGREDIENTS

Substance / Mixture : Mixture

Chemical Name	CAS Number	Classification	Concentration (%)
ETHYLENE GLYCOL	107-21-1	Acute Tox. 4; H302 STOT RE 2; H373	>=40.00 - < 50.00
DIETHYLENE GLYCOL	111-46-6	Acute Tox. 4; H302 STOT RE 2; H373	>=1.50 - < 5.00
POTASSIUM HYDROXIDE	1310-58-3	Met. Corr. 1; H290 Acute Tox. 4; H302 Skin Corr. 1A; H314 Eye Dam. 1; H318	>=1.00 - < 1.50
SODIUM NITRITE	7632-00-0	Ox. Sol. 2; H272 Acute Tox. 3; H301 Eye Irrit. 2A; H319 Carc. 1B; H350	>=0.10 - < 0.50
SODIUM NITRATE	7631-99-4	Ox. Sol. 3; H272 Eye Irrit. 2A; H319 Carc. 1B; H350	>=0.10 - < 0.50

Composition comments: *CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.
US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: FIRST-AID MEASURES

General advice	<ul style="list-style-type: none"> • Move out of dangerous area. • Show this safety data sheet to the doctor in attendance. • Do not leave the victim unattended.
Eye Contact	<ul style="list-style-type: none"> • Flush eyes with water as a precaution. • Remove contact lenses. • Protect unharmed eye. • If eye irritation persists, consult a specialist.
Skin contact	<ul style="list-style-type: none"> • First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
Inhalation	<ul style="list-style-type: none"> • If unconscious, place in recovery position and seek medical advice. • If symptoms persist, call a physician.
Ingestion	<ul style="list-style-type: none"> • Obtain medical attention. • Rinse mouth with water. • Do not give milk or alcoholic beverages. • Never give anything by mouth to an unconscious person. • If symptoms persist, call a physician.
Most important symptoms and effects, both acute & delayed	<ul style="list-style-type: none"> • Effects of acute ethylene glycol poisoning appear in three fairly distinct stages. The initial stage occurs shortly after exposure, lasts 6-12 hours, and is characterized by central nervous system effects (transient exhilaration, nausea, vomiting, and in severe cases, coma, convulsions, and possible death). The second stage lasts from 12-36 hours after exposure and is initiated by the onset of coma. This phase is characterized by tachypnea, tachycardia, mild hypotension, cyanosis, and in severe cases, pulmonary edema, bronchopneumonia, cardiac enlargement, and congestive failure. The final stage occurs 24-72 post- exposure and is characterized by renal failure, ranging from a mild increase in blood urea nitrogen and creatinine followed by recovery, to complete anuria with acute tubular necrosis that can lead to death. Oxaluria is found in most cases. The most significant laboratory finding in ethylene glycol intoxication is severe metabolic acidosis. • Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways) Cough , pain in the abdomen and lower back, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), lung edema (fluid buildup in the lung tissue) , acute kidney failure (sudden slowing or stopping of urine production), Convulsions, Harmful if swallowed. • May damage fertility or the unborn child ,May cause damage to organs through prolonged or repeated exposure if swallowed.
Notes to physician	<ul style="list-style-type: none"> • This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe poisoning since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, give the patient three to four 1-ounce oral "shots" of 86- proof or higher whiskey before or during transport to the hospital. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such, may be used as an antidote in the treatment of ethylene glycol poisoning. Hemodialysis effectively removes ethylene glycol and its metabolites from the body.

SECTION 5: FIREFIGHTING MEASURES

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, Foam, Carbon dioxide (CO ₂), Dry chemical.
Unsuitable extinguishing media	High volume water jet.
Specific hazards during firefighting	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	Alcohols, Aldehydes, carbon dioxide and carbon monoxide, ethers, toxic fumes Hydrocarbons, Sodium oxides.
Specific extinguishing methods	Product is compatible with standard fire-fighting agents.
Further information	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	In the event of fire, wear self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Keep out of low areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the MSDS.
Environmental precautions	If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	<p>Stop the flow of material, if this is without risk.</p> <p>Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.</p> <p>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 MSDS.</p>

SECTION 7: HANDLING AND STORAGE

Precautions for safe Handling	Use good industrial hygiene practices in handling this material. Avoid contact with eyes, skin and clothing. Do not handle until all safety precautions have been read and understood. Avoid prolonged exposure.
Conditions for safe storage including any incompatibilities	Store in original tightly closed container. Keep away from heat, open flames or other sources of ignition. Store away from incompatible materials (see Section 10 of the MSDS). Keep out of reach of children.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit	This product does not contain any components with OSHA or ACGIH exposure limits.
Eye/face protection	Eye protection is not required under conditions of normal use. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety goggles.
Skin protection	No skin protection is required for single, short duration exposures. For prolonged or repeated exposures, use impervious clothing (boots, gloves, aprons, etc.) over parts of the body subject to exposure. If handling hot material, use insulated protective clothing (boots, gloves, aprons, etc.). Launder soiled clothes. Properly dispose of contaminated leather articles including shoes, which cannot be decontaminated.
Respiratory protection	Respiratory protection is not required under conditions of normal use. If vapour or mist is generated when the material is heated or handled, use an organic vapour respirator with a dust and mist filter. All respirators must be NIOSH certified. Do not use compressed oxygen in hydrocarbon atmospheres.
Personal hygiene	Consumption of food and beverage should be avoided in work areas where hydrocarbons are present. Always wash hands and face with soap and water before eating, drinking, or smoking.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear and bright
Colour	Light Green
Physical state	Liquid
Vapour density (air = 1)	> 1
Boiling point	>109°C
Flash Point	>110 °C
Melting point	N/A
Specific Gravity @15°C	1.077 g/ml
Solubility in Water	No data available

SECTION 10: STABILITY AND REACTIVITY INFORMATION

Reactivity	No decomposition if stored and applied as directed.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Product will not undergo hazardous polymerization.
Conditions to avoid	<ul style="list-style-type: none"> • Keep away from heat, flame, sparks and other ignition sources. • Excessive heat.
Incompatible materials	Acids Alcohols, Aldehydes, Alkali metals, Alkaline earth metals, Amines, Bases, chlorinated solvents, halogenated hydrocarbons, strong alkalis, Strong oxidizing agents, Sulphur compounds, Zinc.
Hazardous decomposition products	Alcohols, Aldehydes, carbon dioxide and carbon monoxide, ethers, Hydrocarbons, Organic acids, potassium oxide, ketones.

SECTION 11: TOXICOLOGICAL INFORMATION

Eye irritation	Unlikely to cause eye irritation or Injury.
Skin irritation	Not Classified based on available Information.
Skin sensitization	Not Classified based on available Information.
Acute dermal toxicity	Skin absorption of this material (or a component) may be increased through injured skin.
Acute oral toxicity	Ingestion of medications contaminated with diethylene glycol has caused kidney failure and death in humans. Products containing diethylene glycol should be considered toxic by ingestion.
Inhalation toxicity	No adverse effect has been observed in acute inhalation toxicity tests.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	Not classified based on available information. Acute aquatic toxicity Category 3; Harmful to aquatic life. Consequently; this material should be kept out of sewage and drainage systems and all bodies of water.
Environmental fate	Ethylene Glycol, Diethylene Glycol, Sodium Benzoate are considered readily biodegradable. Potassium Hydroxide, Sodium nitrite are inorganic substances thus the methods for determining biodegradability are not applicable.

SECTION 13: DISPOSAL INFORMATION

Disposal methods	The product should not be allowed to enter drains, water courses or the soil.
Waste from residues	Offer surplus and non-recyclable solutions to a licensed disposal company. Waste must be classified and labelled prior to recycling or disposal. Send to a licensed waste management company. Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.

SECTION 14: TRANSPORT INFORMATION

International Regulations	
IATA-DGR	Not regulated as a dangerous good.
IMDG-Code	Not regulated as a dangerous good.
ADR/RID	Not regulated as a dangerous good.
National Regulations	
TDG	Not regulated as a dangerous good.

SECTION 15: OTHER INFORMATION

REFERENCES: Sources of information used in preparing this MSDS included one or more of the following: results from in house or supplier toxicology studies, CONCAWE Product Dossiers, publications from other trade associations, such as the EU Hydrocarbon Solvents, REACH Consortium, U.S. HPV Program Robust Summaries, the EU IUCLID Data Base, U.S. NTP publications, and other sources, as appropriate.

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Further Information:	Not Available
Other Information:	For an updated MSDS, Please contact the supplier/manufacturer listed on the first page of the document.

KEEP OUT OF REACH OF CHILDREN

REVISION STATEMENT

This revision corrects the product name .Other changes have been made throughout this Material Safety Data Sheet. Please read the entire documents.

DISCLAIMER OF WARRANTY

The above information contained herein is based upon data and information available to us, and reflects our best professional judgment. This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, LAUNCHER'S Products must rely upon the hazard evaluation of such components submitted by that product's manufacturer or importer. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information, the results to be obtained from the use thereof, or that any such use do not infringe any patent. Since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.