



## Safety Data Sheet

**Material Name: Performance Plus LD/HD Extended Service Interval HOAT  
Pre-diluted Antifreeze/ Coolant - 50/50 Blend**

**SDS ID: 820296**

### Section 1 - PRODUCT AND COMPANY IDENTIFICATION

**Material Name**

Performance Plus LD/HD Extended Service Interval HOAT Pre-diluted Antifreeze/Coolant – 50/50 Blend

**Product Code**

Not available.

**Product Use**

An Extended Service Interval Antifreeze/Coolant containing a hybrid organic acid technology (HOAT) corrosion inhibitor package. Low silicate, phosphate free. Use in gasoline automobiles/light duty trucks and heavy duty diesel applications requiring a HOAT type corrosion inhibitor package. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

**Restrictions on Use**

DO NOT ADD WATER. This antifreeze/engine coolant product is pre-diluted 50/50 with de-ionized water and is ready to use. Further dilution may have a negative impact on product performance. DO NOT ADD Supplemental Coolant Additives (SCAs) at initial fill. Product is fully formulated with a minimum concentration of nitrite (as NO<sub>2</sub><sup>-</sup>) of 1,200 µg/g (ppm) in order to meet the ASTM D6210 requirements for protecting cylinder liners against cavitation corrosion.

**MANUFACTURER/SUPPLIER**

Safety-Kleen Systems, Inc.  
2600 North Central Expressway  
Suite 200  
Richardson, TX 75080  
www.safety-kleen.com

**IMPORTER/DISTRIBUTOR**

Safety-Kleen Canada, Inc.  
25 Regan Road  
Brampton, Ontario, Canada L1A 1B2

Phone: 1-800-669-5740  
Emergency Phone #: 1-800-468-1760

**Issue Date**

March 2, 2017

**Supersedes Issue Date**

New Issue SDS

**Original Issue Date**

March 2, 2017

### Section 2 - HAZARDS IDENTIFICATION

**Classification in accordance with Schedule 1 of Canada's Hazardous Products Regulations (HPR) (SOR/2015-17) and paragraph (d) of 29 CFR 1910.1200 in the United States**

Acute Toxicity - Oral - Category 4

Reproductive Toxicity - Category 2

Specific Target Organ Toxicity – Single Exposure – Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 2

# Safety Data Sheet

Material Name: Performance Plus LD/HD Extended Service Interval HOAT  
Pre-diluted Antifreeze/Coolant – 50/50 Blend

SDS ID: 820296

## GHS Label Elements

### Symbol(s)



### Signal Word

Warning

### Hazard Statement(s)

Harmful if swallowed.

May cause respiratory irritation.

Suspected of damaging fertility or the unborn child.

May cause damage to organs through prolonged or repeated exposure.

### Precautionary Statement(s)

#### Prevention

Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

This product contains 30-50 ppm (0.003-0.005%) denotonium benzoate bittering agent which has been added to help prevent ingestion by humans and animals.

#### Response

IF exposed or concerned: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTER/doctor. Rinse mouth.

#### Storage

Store locked up.

#### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Statement(s) of Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown acute toxicity.

#### Other Hazards

None known.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
107-21-1	Ethylene glycol	40-60
111-46-6	Diethylene Glycol	0-0.5
7732-18-5	Water (De-ionized)	40-60

Product contains 30 to 50 ppm denotonium benzoate bittering agent (3734-33-6) which has been added to help prevent ingestion by humans and animals.

## Safety Data Sheet

Material Name: Performance Plus LD/HD Extended Service Interval HOAT  
Pre-diluted Antifreeze/Coolant – 50/50 Blend

SDS ID: 820296

### Section 4 - FIRST AID MEASURES

#### Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

#### Skin

IF ON SKIN: Wash with plenty of soap and water. Get medical attention, if needed. Take off contaminated clothing and wash it before reuse.

#### Eyes

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 advice/attention.

#### Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician. Rinse mouth.

#### Most Important Symptoms/Effects

##### Acute

Harmful if swallowed. This product contains 30-50 ppm (0.003-0.005%) denotonium benzoate bittering agent which has been added to help prevent ingestion by humans and animals.

##### Delayed

Reproductive Effects, kidney damage, liver damage

#### Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information. Ethylene glycol is metabolized by alcohol dehydrogenase to various metabolites including glycoaldehyde, glycolic acid, and oxalic acid. The signs and symptoms in ethylene glycol poisoning are those of metabolic acidosis, central nervous system depression, and kidney damage. The currently recommended medical management of ethylene glycol poisoning includes elimination of ethylene glycol and metabolites, correction of metabolic acidosis, and prevention of kidney injury. As a competitive substrate for alcohol dehydrogenase, ethanol is antidotal when given in the early stages of intoxication because it blocks the formation of nephrotoxic metabolites. A more effective intravenous antidote is 4-methylpyrazole, a potent inhibitor of alcohol dehydrogenase, which effectively blocks the formation of toxic metabolites. Pulmonary edema with hypoxia has been described in a number of patients following ethylene glycol poisoning. Respiratory support with mechanical ventilation and positive end expiratory pressure may be required. There may be cranial nerve involvement in the later stages of toxicity from swallowing ethylene glycol. Effects have been reported presenting bilateral facial paralysis, diminished hearing, and dysphagia.

### Section 5 - FIRE FIGHTING MEASURES

#### Extinguishing Media

##### Suitable Extinguishing Media

Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, water fog. Water or foam may cause frothing.

##### Unsuitable Extinguishing Media

Do not use high-pressure water streams.

#### Special Hazards Arising from the Chemical

Slight fire hazard. Avoid friction, static electricity and sparks.

#### Hazardous Combustion Products

Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.

# Safety Data Sheet

**Material Name: Performance Plus LD/HD Extended Service Interval HOAT  
Pre-diluted Antifreeze/Coolant – 50/50 Blend**

**SDS ID: 820296**

## **Fire Fighting Measures**

Move container from fire area if it can be done without risk. Keep storage containers cool with water spray. Heated containers may rupture or be thrown into the air. "Empty" containers may retain residue and can be dangerous.

## **Special Protective Equipment and Precautions for Firefighters**

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

## **Section 6 - ACCIDENTAL RELEASE MEASURES**

### **Personal Precautions, Protective Equipment and Emergency Procedures**

Wear personal protective clothing and equipment. Avoid release to the environment.

### **Methods and Materials for Containment and Cleaning Up**

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean tool into a sealable container for disposal. Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

## **Section 7 - HANDLING AND STORAGE**

### **Precautions for Safe Handling**

Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin and clothing. Do not smoke while using this product.

### **Conditions for Safe Storage, Including any Incompatibilities**

Store locked up. Keep container tightly closed when not in use and during transport. Store in a cool, dry, well-ventilated area. Do not pressurize, cut, heat or weld containers. Empty product containers may contain product residue. Do not reuse empty containers.

### **Incompatible Materials**

Acids, bases, oxidizing materials, reactive metals, reducing agents.

## **Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

### **Component Exposure Limits**

Ethylene glycol	107-21-1
ACGIH:	100 mg/m <sup>3</sup> Ceiling aerosol only
Alberta	100 mg/m <sup>3</sup> Ceiling

## Safety Data Sheet

**Material Name: Performance Plus LD/HD Extended Service Interval HOAT  
Pre-diluted Antifreeze/Coolant – 50/50 Blend**

**SDS ID: 820296**

British Columbia	10 mg/m3 TWA particulate; 100 mg/m3 Ceiling aerosol ; 50 ppm Ceiling vapour 20 mg/m3 STEL particulate
Manitoba, New Brunswick, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island	100 mg/m3 Ceiling aerosol only
Quebec	50 ppm Ceiling mist and vapour ; 127 mg/m3 Ceiling mist and vapour
Saskatchewan	100 mg/m3 Ceiling aerosol
Yukon	10 mg/m3 TWA particulate ; 100 ppm TWA vapour ; 250 mg/m3 TWA vapour 10 ppm STEL particulate ; 20 mg/m3 STEL particulate ; 125 ppm STEL vapour ; 325 mg/m3 STEL vapour

### ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

### Engineering Controls

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

### Individual Protection Measures, such as Personal Protective Equipment

#### Eye/face protection

Wear safety glasses. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Eye wash fountain and emergency showers are recommended. Contact lens use is not recommended.

#### Respiratory Protection

A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910.134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions warrant a respirator's use. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

#### Glove Recommendations

Where skin contact is likely, wear gloves impervious to product; use of natural rubber (latex) or equivalent gloves is not recommended. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

#### Protective Materials

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: Safety glasses, gloves, and/or lab coat or apron.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**

Liquid

**Physical State**

Liquid

## Safety Data Sheet

Material Name: Performance Plus LD/HD Extended Service Interval HOAT  
Pre-diluted Antifreeze/Coolant – 50/50 Blend

SDS ID: 820296

<b>Odor</b>	Mild/Sweet	<b>Color</b>	Yellow
<b>Odor Threshold</b>	Not available	<b>pH</b>	10.0-10.8
<b>Melting Point</b>	Not Applicable	<b>Boiling Point (760 mmHg)</b>	108°C (226°F) Minimum
<b>Boiling Point Range</b>	Not Applicable	<b>Freezing point</b>	-36.4°C (-33.5°F) max
<b>Evaporation Rate</b>	Not available	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition Temperature</b>	398 °C (748 °F) [100% Ethylene glycol]	<b>Flash Point</b>	111 °C (232 °F) [100% Ethylene glycol]
<b>Lower Explosive Limit</b>	3.2 vol% (100% Ethylene glycol )	<b>Decomposition temperature</b>	Not available
<b>Upper Explosive Limit</b>	15.3 vol% (100% Ethylene glycol )	<b>Vapor Pressure at 20°C</b>	0.067 hPa [100% Ethylene Glycol]
<b>Vapor Density (air=1)</b>	Not available	<b>Specific Gravity at 20 °C (water=1)</b>	1.065-1.083
<b>Water Solubility</b>	Complete	<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Viscosity</b>	Not available	<b>Solubility (Other)</b>	Not available
<b>Density at 20°C</b>	9.3-9.4 lbs/gal	<b>Physical Form</b>	Liquid
<b>Molecular Weight</b>	Not available		

### Section 10 - STABILITY AND REACTIVITY

#### Reactivity

No reactivity hazard is expected.

#### Chemical Stability

Stable under normal temperatures and pressures.

#### Possibility of Hazardous Reactions

Will not polymerize.

#### Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

#### Incompatible Materials

Acids, bases, oxidizing materials, reactive metals, reducing agents

#### Hazardous decomposition products

None under normal temperatures and pressures. See also SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

### Section 11 - TOXICOLOGICAL INFORMATION

#### Information on Likely Routes of Exposure

# Safety Data Sheet

**Material Name: Performance Plus LD/HD Extended Service Interval HOAT  
Pre-diluted Antifreeze/Coolant – 50/50 Blend**

**SDS ID: 820296**

## **Inhalation**

May cause kidney damage, liver damage.

## **Skin Contact**

May cause skin irritation.

## **Eye Contact**

May cause eye irritation.

## **Ingestion**

Harmful if swallowed. May cause vomiting and nausea.

## **Acute and Chronic Toxicity**

### **Component Analysis - LD50/LC50**

The components of this material have been reviewed in various sources and the following selected endpoints are published:

#### **Ethylene glycol (107-21-1)**

Oral LD50 Rat 4700 mg/kg; Dermal LD50 Rat 10600 mg/kg

#### **Water (7732-18-5)**

Oral LD50 Rat >90 mL/kg

## **Product Toxicity Data**

### **Acute Toxicity Estimate**

Dermal	> 2000 mg/kg
Inhalation - Vapor	> 20 mg/L

## **Immediate Effects**

Harmful if swallowed.

## **Delayed Effects**

Reproductive Effects, kidney damage, liver damage

## **Irritation/Corrosivity Data**

May cause irritation.

## **Respiratory Sensitization**

No information available for the product.

## **Dermal Sensitization**

No information available for the product.

## **Component Carcinogenicity**

<b>Ethylene glycol</b>	<b>107-21-1</b>
ACGIH:	A4 - Not Classifiable as a Human Carcinogen

## **Germ Cell Mutagenicity**

No information available for the product.

## **Tumorigenic Data**

No information available for the product.

## **Reproductive Toxicity**

Suspected of damaging fertility or the unborn child.

## **Specific Target Organ Toxicity - Single Exposure**

No target organs identified.

## **Specific Target Organ Toxicity - Repeated Exposure**

Kidneys, liver

## **Aspiration hazard**

No information available for the product.

## **Medical Conditions Aggravated by Exposure**

No information is available. No information available for the product.

# Safety Data Sheet

Material Name: Performance Plus LD/HD Extended Service Interval HOAT  
Pre-diluted Antifreeze/Coolant – 50/50 Blend

SDS ID: 820296

## Additional Data

No additional information is available.

## Section 12 - ECOLOGICAL INFORMATION

### Component Analysis - Aquatic Toxicity

Ethylene glycol	107-21-1
Fish:	LC50 96 h Oncorhynchus mykiss 41000 mg/L; LC50 96 h Oncorhynchus mykiss 14 - 18 mL/L [static ]; LC50 96 h Lepomis macrochirus 27540 mg/L [static ]; LC50 96 h Oncorhynchus mykiss 40761 mg/L [static ]; LC50 96 h Pimephales promelas 40000 - 60000 mg/L [static ]; LC50 96 h Poecilia reticulata 16000 mg/L [static ]
Algae:	EC50 96 h Pseudokirchneriella subcapitata 6500 - 13000 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 46300 mg/L IUCLID

### Persistence and Degradability

No information available for the product.

### Bioaccumulative Potential

No information available for the product.

### Mobility

No information available for the product.

## Section 13 - DISPOSAL CONSIDERATIONS

### Disposal Methods

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

### Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components

## Section 14 - TRANSPORT INFORMATION

### US DOT Information:

No Classification assigned.

Additional Information: Bulk Shipments 5000 lbs or greater of ethylene glycol (~1070 gallons blended product): UN 3082, Environmentally hazardous substance, liquid, n.o.s. (Ethylene glycol), RQ, 9, PGIII

### IATA Information:

UN#: Not regulated as a dangerous good.

### TDG Information:

UN#: Not regulated as a dangerous good.

## Section 15 - REGULATORY INFORMATION

### U.S. Federal Regulations



## Safety Data Sheet

**Material Name: Performance Plus LD/HD Extended Service Interval HOAT  
Pre-diluted Antifreeze/Coolant – 50/50 Blend**

**SDS ID: 820296**

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

<b>Ethylene glycol</b>	<b>107-21-1</b>
SARA 313:	1 % de minimis concentration
CERCLA:	5000 lb final RQ ; 2270 kg final RQ

**SARA Section 311/312 (40 CFR 370 Subparts B and C) 2016 reporting categories**

**Acute Health:** Yes **Chronic Health:** Yes **Fire:** No **Pressure:** No **Reactivity:** No

**SARA Section 311/312 (40 CFR 370 Subparts B and C) 2017 reporting categories**

Acute toxicity; Reproductive Toxicity; Specific Target Organ Toxicity

**U.S. State Regulations**

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
<b>Ethylene glycol</b>	<b>107-21-1</b>	Yes	Yes	Yes	Yes	Yes

**The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):**

**WARNING!** This product can expose you to chemicals including Ethylene Glycol which is known to the State of California to cause birth defects or other reproductive harm. For more information go to

[www.P65Warnings.gov](http://www.P65Warnings.gov).

<b>Ethylene glycol</b>	<b>107-21-1</b>
Repro/Dev. Tox	developmental toxicity , 6/19/2015 (ingested )

**Canada Regulations**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR. D2A, D2B.

**Canadian WHMIS Ingredient Disclosure List (IDL)**

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

<b>Ethylene glycol</b>	<b>107-21-1</b>
	1 %

**CEPA - Priority Substances List**

<b>Ethylene glycol</b>	<b>107-21-1</b>
	Priority Substance List 2 (substance not considered toxic )

**Ozone Depleting Substances**

None of this product's components are on the list.

**Council of Ministers of the Environment - Soil Quality Guidelines**

<b>Ethylene glycol</b>	<b>107-21-1</b>
------------------------	-----------------

# Safety Data Sheet

**Material Name: Performance Plus LD/HD Extended Service Interval HOAT  
Pre-diluted Antifreeze/Coolant – 50/50 Blend**

**SDS ID: 820296**

Residential and Parkland	960 mg/kg (dry weight )
--------------------------	-------------------------

## **Council of Ministers of the Environment - Water Quality Guidelines**

None of this product's components are on the list.

## **Component Analysis - Inventory**

**Ethylene glycol (107-21-1); Water (7732-18-5); Diethylene glycol (111-46-6)**

US	CA
Yes	DSL

## **Section 16 - OTHER INFORMATION**

### **NFPA Ratings**

Health: 2 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

### **Summary of Changes**

11/29/17: Correction of color from green to yellow.

### **Key / Legend**

ACGIH - American Conference of Governmental Industrial Hygienists; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania\*; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CPR - Controlled Products Regulations; DOT - Department of Transportation; DSL - Domestic Substances List; EPA - Environmental Protection Agency; F - Fahrenheit; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NDSL - Non-Domestic Substance List (Canada); NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; RCRA - Resource Conservation and Recovery Act; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; WHMIS - Workplace Hazardous Materials Information System (Canada)

### **Other Information**

#### **Disclaimer:**

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplied to the user.