

Material Name: Flo-Perm All Season Windshield Washer Antifreeze -40°C SDS ID: 87000

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

Flo-Perm All Season Windshield Washer Antifreeze -40°C

Product Code

FP90X40XX

Synonyms

None available.

Product Use

Antifreeze. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

Restrictions on Use

None known.

MANUFACTURER

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Issue Date

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Supersedes Issue Date

December 4, 2017

Original Issue Date

Not available.

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with Schedule 1 of Hazardous Products Regulations (HPR) (SOR/2015-17)

Flammable Liquids - Category 3

Acute Toxicity - Oral - Category 3

Serious Eye Damage/Eye Irritation - Category 2A

Reproductive Toxicity - Category 1

Specific Target Organ Toxicity - Single Exposure - Category 2 (retina , central nervous system , systemic system)

Specific Target Organ Toxicity - Single Exposure - Category 3

GHS Label Elements

Symbol(s)



Signal Word
Danger

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Hazard Statement(s)

Flammable liquid and vapor.

Toxic if swallowed.

Causes serious eye irritation.

May damage fertility or the unborn child.

May cause damage to organs.

May cause drowsiness or dizziness.

Precautionary Statement(s)

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking, Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take action to prevent static discharges. Use non-sparking tools. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

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Response

In case of fire: Use dry chemical, carbon dioxide, alcohol-resistant foam or water spray. If exposed or concerned: Call a POISON CENTER or doctor/physician. IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. 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. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.

Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

Disposal

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

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent		
67-56-1	Methyl alcohol	>35-<50		

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. Call a POISON CENTER or doctor/physician if you feel unwell. Take off contaminated clothing and wash 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: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

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Most Important Symptoms/Effects

Acute

Toxic if swallowed. Causes serious eye irritation. May cause damage to organs. May cause drowsiness or dizziness

Delayed

May damage fertility or the unborn child.

Indication of any immediate medical attention and special treatment needed

IF exposed: Call a POISON CENTER or doctor/physician. Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use dry chemical, carbon dioxide, alcohol-resistant foam or water spray. Use water spray to cool fire fire-exposed containers. Water will not cool methanol below its flash point.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Special Hazards Arising from the Chemical

Flammable liquid and vapor. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Product may be sensitive to static discharge, which could result in fire or explosion. Vapors may form explosive mixture with air. Fire may produce irritating, poisonous and/or corrosive fumes. Empty product containers may retain product residue and can be dangerous. Containers may rupture or explode.

Hazardous Combustion Products

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

Fire Fighting Measures

Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Cool containers with water spray until well after the fire is out. Avoid inhalation of material or combustion by-products.

Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

Methods and Materials for Containment and Cleaning Up

Remove all ignition sources. Do not touch or walk through spilled material. Stop leak if you can do it without risk. 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, sparkproof 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.

Environmental Precautions

Avoid release to the environment. Biodegradable at low concentrations. Soluble in water. When released, this product is expected to evaporate. Dispose in accordance with all applicable federal, state/regional and local laws and regulations.

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Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

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, clothing, shoes. Do not smoke while using this product. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Conditions for Safe Storage, Including any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Keep container tightly closed. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Empty product containers may retain product residue and can be dangerous. Protect from sunlight. See SECTION 14:

TRANSPORTATION INFORMATION for Packing Group information.

Incompatible Materials

Acids, halocarbons, combustible materials, metals, oxidizing materials, halogens, metal carbide, bases, amines.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Methyl alcohol	67-56-1
Alberta	200 ppm TWA; 262 mg/m3 TWA; 250 ppm STEL; 328 mg/m3 STEL Substance may be readily absorbed through intact skin
British Columbia; Nunavut	200 ppm TWA; Skin notation; 250 ppm STEL
Manitoba	200 ppm TWA; Skin - potential for cutaneous absorption; Skin - potential significant contribution to overall exposure by the cutaneous route
New Brunswick, Northwest Territories	200 ppm TWA; 262 mg/m3 TWA; 250 ppm STEL; 328 mg/m3 STEL Skin - potential for cutaneous absorption
Nova Scotia	200 ppm TWA; 250 ppm STEL; Skin - potential significant contribution to overall exposure by the cutaneous route
Ontario	200 ppm TWA; 250 ppm STEL; Danger of cutaneous absorption
Prince Edward Island	200 ppm TWA; 250 ppm STEL
Quebec	200 ppm TWAEV ; 262 mg/m3 TWAEV; 250 ppm STEV ; 328 mg/m3 STEV Skin designation
Saskatchewan	200 ppm TWA; 250 ppm STEL; Potentially harmful after absorption through skin or mucous membranes

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Yukon	200 ppm TWA ; 260 mg/m3 TWA; 250 ppm STEL ; 310 mg/m3 STEL Skin notation
ACGIH:	200 ppm TWA; 250 ppm STEL; Skin - potential significant contribution to overall exposure by the cutaneous route

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ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI) Methyl alcohol (67-56-1)

15 mg/l Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)

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. Where explosive mixtures may be present, equipment safe for such locations should be used. Ground/Bond container and receiving equipment.

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

Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

Glove Recommendations

Where skin contact is likely, wear impervious gloves; 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 Lab coat or apron.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, blue liquid	Physical State	Liquid
Odor	Slight alcohol odor	Color	Clear blue
Odor Threshold	Not available	pH	7.5 - 9
Melting Point	-40 °C	Boiling Point	79 °C
Boiling Point Range	Not available	Freezing point	-40 °C
Evaporation Rate	Not available	Flammability (solid, gas)	Not available
Autoignition Temperature	Not available	Flash Point	27 °C
Lower Explosive Limit	6 % (methanol)	Decomposition temperature	Not available
Upper Explosive Limit	36.5 % (methanol)	Vapor Pressure	Not available
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	Not available

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Water Solubility 100 % Partition coefficient: n-

octanol/water

Not available

Viscosity Not available Kinematic viscosity Not available

Solubility (Other) Not available Density 0.93 - 0.94

Physical Form Liquid Molecular Weight Not available

Other Information

No additional information is 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 under normal temperature and pressure conditions.

Conditions to Avoid

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

Incompatible Materials

Acids, halocarbons, combustible materials, metals, oxidizing materials, halogens, metal carbide, bases, amines.

Hazardous decomposition products

Decomposition products include carbon dioxide, carbon monoxide, and unidentified organic compounds. See also SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation

May be harmful if inhaled. May cause irritation, nausea, loss of appetite, headache, drowsiness, dizziness, disorientation, tremors, lung damage (from aspiration), confusion, convulsions, coma.

Skin Contact

May be harmful in contact with skin. May cause skin irritation.

Eye Contact

Causes serious eye irritation.

Ingestion

Toxic if swallowed. May cause headache, drowsiness, dizziness, loss of coordination, blindness.

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:

Methyl alcohol (67-56-1)

Oral LD50 Rat 6200 mg/kg; Dermal LD50 Rabbit 15840 mg/kg; Inhalation LC50 Rat 22500 ppm 8 h

Product Toxicity Data

Acute Toxicity Estimate

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

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Oral	> 2000 mg/kg
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Immediate Effects

Toxic if swallowed. May cause damage to organs. Causes eye damage, blindness, systemic toxicity, central nervous system damage.

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Delayed Effects

May damage fertility or the unborn child.

Irritation/Corrosivity Data

May cause skin irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA.

Germ Cell Mutagenicity

No information available for the product.

Tumorigenic Data

No information available for the product.

Reproductive Toxicity

May damage fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Eyes, central nervous system and retina, systemic toxicity.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

No information available for the product.

Medical Conditions Aggravated by Exposure

Individuals with pre-existing respiratory tract (nose, throat, and lungs), cardiovascular, liver, kidney, central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

Additional Data

No additional information is available.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Methyl alcohol	67-56-1
	LC50 96 h Pimephales promelas 28200 mg/L [flow-through]; LC50 96 h Pimephales promelas >100 mg/L [static]; LC50 96 h Oncorhynchus mykiss 19500 - 20700 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 18 - 20 mL/L [static]; LC50 96 h Lepomis macrochirus 13500 - 17600 mg/L [flow-through]

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information is available.

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Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

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

Section 14 - TRANSPORT INFORMATION

US DOT Information:

Shipping Name: ALCOHOLS, FLAMMABLE, TOXIC, N.O.S., (Contains: methanol)

Hazard Class: 3 (6.1) UN/NA #: UN1986 Packing Group: III Required Label(s): 3

Further information: Consumer Commodity ORM-D Per 49 CFR Part 173.10 (PG III, inner packaging no more

than 5.0 L)

TDG Information:

Shipping Name: ALCOHOLS, FLAMMABLE, TOXIC, N.O.S., (Contains: methanol)

Hazard Class: 3 (6.1) UN#: UN1986 Packing Group: III

Required Label(s): 3

Further information: Containers of 450L or less: This product meets the requirements for exemption under TDG regulation special provisions, part 1, section 1.36b: Class 3, Flammable liquids: Alcohol Exemption. Containers larger than 450L and bulk: TDG regulation apply.

International Bulk Chemical Code

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Methyl alcohol	67-56-1
IBC Code:	Category Y

Further information

ERG 128; Reference: North American Emergency Response Guidebook

Section 15 - REGULATORY INFORMATION

Canada Regulations

CEPA - Priority Substances List

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

Ozone Depleting Substances

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

Council of Ministers of the Environment - Soil Quality Guidelines

Methyl alcohol	67-56-1
Residential and	4.6 mg/kg coarse (dry weight, human health soil quality guideline); 7.7 mg/kg coarse (dry weight, environmental soil quality guideline); 4.6 mg/kg coarse (dry weight, soil quality guideline - lower of the human health soil quality guideline and the

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environmental soil quality guideline is the soil quality guideline); 5.6 mg/kg fine (dry weight, human health soil quality guideline); 190 mg/kg fine (dry weight, environmental soil quality guideline); 5.6 mg/kg fine (dry weight, soil quality guideline - lower of the human health soil quality guideline and the environmental soil quality guideline is the soil quality guideline)

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Council of Ministers of the Environment - Water Quality Guidelines

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

U.S. Federal Regulations

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.

Methyl alcohol	67-56-1
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: Yes Pressure: No Reactivity: No

Component Analysis - Inventory

Methyl alcohol (67-56-1)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	VECI	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW	VN (Draft)
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

NFPA Ratings

Health: 2 Fire: 3 Reactivity: 0

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

Summary of Changes:

2018-10-22: Clarification to Section 14, TRANSPORT INFORMATION.

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC – European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation

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Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG -International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID -International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL), KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIstsTM - ChemADVISOR's Regulatory Database; MAK -Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne-Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc -Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG -Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

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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, Vulsay 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.

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