

## SAFETY DATA SHEET

## NAPA® ANTIFREEZE COOLANT NP001

Revision Date: 12/02/2011  
Print Date: 7/26/2013  
MSDS Number: R0311762  
Version: 2.6

## **1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

Product name NAPA® ANTIFREEZE COOLANT

Product code NP001

## 2. HAZARDS IDENTIFICATION

## **Emergency Overview**

Appearance: liquid, green

WARNING! MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION. HARMFUL IF SWALLOWED.

## Potential Health Effects

## Exposure routes

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

## Eye contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

## Skin contact

Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Skin absorption of this material (or a component) may be increased through injured skin.

## Ingestion

Swallowing this material may be harmful. Liver, kidney and brain damage in humans has resulted from swallowing lethal or near-lethal amounts of ethylene glycol.

**SAFETY DATA SHEET**

NAPA® ANTIFREEZE COOLANT  
NP001

Revision Date: 12/02/2011  
Print Date: 7/26/2013  
MSDS Number: R0311762  
Version: 2.6

**Inhalation**

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

**Aggravated Medical Condition**

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:, lung (for example, asthma-like conditions), Liver, Kidney, Central nervous system, Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias., Individuals with preexisting kidney disorders are more susceptible to hyperkalemia from overexposure to potassium compounds.

**Symptoms**

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, central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, 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), liver damage, Convulsions, coma

**Target Organs**

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals:, reproductive effects, kidney damage, liver damage, central nervous system damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans:, liver damage, kidney damage

**Carcinogenicity**

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

**Reproductive hazard**

Ethylene glycol has caused birth defects in animal studies at high oral doses. However, it did not cause harm to the pregnant animal or to the fetus when applied to the skin of the pregnant animal., This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm

**SAFETY DATA SHEET**

Revision Date: 12/02/2011

Print Date: 7/26/2013

MSDS Number: R0311762

Version: 2.6

NAPA® ANTIFREEZE COOLANT  
NP001

to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Hazardous Components	CAS-No. / Trade Secret No.	Concentration
ETHYLENE GLYCOL	107-21-1	>=90-<=100%
DIETHYLENE GLYCOL	111-46-6	>=1.5-<5%
DIPOTASSIUM PHOSPHATE	7758-11-4	>=1.5-<5%

**4. FIRST AID MEASURES****Eyes**

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

**Skin**

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

**Ingestion**

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

**Inhalation**

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

**Notes to physician**

**SAFETY DATA SHEET**

Revision Date: 12/02/2011

Print Date: 7/26/2013

MSDS Number: R0311762

Version: 2.6

NAPA® ANTIFREEZE COOLANT  
NP001

**Hazards:** 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. Ingestion or other significant exposure to this material (or a component) may cause metabolic acidosis. Excessive levels of phosphorus can cause low blood calcium, with tetany and convulsions.

**Treatment:** 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. 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, diethylene glycol and methanol poisoning.

**5. FIREFIGHTING MEASURES****Suitable extinguishing media**Dry chemical, Carbon dioxide (CO<sub>2</sub>), Water spray**Hazardous combustion products**

Alcohols, Aldehydes, carbon dioxide and carbon monoxide, ethers, Hydrocarbons, Oxides of phosphorus, potassium oxide, toxic fumes

**Precautions for fire-fighting**

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers

**SAFETY DATA SHEET**

NAPA® ANTIFREEZE COOLANT  
NP001

Revision Date: 12/02/2011  
Print Date: 7/26/2013  
MSDS Number: R0311762  
Version: 2.6

and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

**NFPA Flammable and Combustible Liquids Classification**

Combustible Liquid Class IIIB

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

**Environmental precautions**

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up**

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

**Other information**

Comply with all applicable federal, state, and local regulations.

**7. HANDLING AND STORAGE****Handling**

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

**Storage**

Store in a cool, dry, ventilated area.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Exposure Guidelines**

**SAFETY DATA SHEET**

Revision Date: 12/02/2011

Print Date: 7/26/2013

MSDS Number: R0311762

Version: 2.6

NAPA® ANTIFREEZE COOLANT  
NP001

<b>ETHYLENE GLYCOL</b>	<b>107-21-1</b>		
ACGIH	Ceiling Limit Value:	100 mg/m <sup>3</sup>	Aerosol.

**General advice**

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

**Exposure controls**

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

**Eye protection**

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

**Skin and body protection**

Wear resistant gloves such as:

Neoprene  
polyvinyl chloride  
Nitrile rubber

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Discard gloves that show tears, pinholes, or signs of wear.

**Respiratory protection**

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

**SAFETY DATA SHEET**NAPA® ANTIFREEZE COOLANT  
NP001Revision Date: 12/02/2011  
Print Date: 7/26/2013  
MSDS Number: R0311762  
Version: 2.6**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state</b>	liquid
<b>Colour</b>	green
<b>Boiling point/boiling range</b>	330 °F / 166 °C @ 760.00 mmHg
<b>pH</b>	(+/- 0.7) 10.7
<b>Flash point</b>	> 250 °F / > 121 °C
<b>Lower explosion limit/Upper explosion limit</b>	3.2 %(V) / 15.3 %(V)
<b>Vapour pressure</b>	23.333 hPa @ 68 °F / 20 °C Calculated Vapor Pressure
<b>Density</b>	(Average) 1.236 g/cm3 @ 60.01 °F / 15.56 °C 9.41 lb/gal @ 60.1 °F / 15.6 °C
<b>Water solubility</b>	soluble

**10. STABILITY AND REACTIVITY****Stability**

Stable.

**Conditions to avoid**

None known.

**Incompatible products**

Acids, Aldehydes, Alkali metals, Alkaline earth metals, Bases, Heavy metals, strong alkalis, Strong oxidizing agents, Sulphur compounds

**Hazardous decomposition products**

Alcohols, Aldehydes, carbon dioxide and carbon monoxide, ethers, Hydrocarbons, Organic acids, Oxides of phosphorus, potassium oxide, ketones

**Hazardous reactions**

Product will not undergo hazardous polymerization.

**SAFETY DATA SHEET**NAPA® ANTIFREEZE COOLANT  
NP001Revision Date: 12/02/2011  
Print Date: 7/26/2013  
MSDS Number: R0311762  
Version: 2.6**11. TOXICOLOGICAL INFORMATION****Acute oral toxicity**Acute oral toxicity - : no data available  
Product

## Acute oral toxicity - Components

ETHYLENE GLYCOL : LD 50: 6,140 mg/kg Species: Rat  
DIETHYLENE GLYCOL : LD 50: 12,565 mg/kg Species: Rat  
DIPOTASSIUM PHOSPHATE : LD50: > 2,000 mg/kg Species: Rat**Acute inhalation toxicity**Acute inhalation toxicity - : no data available  
Product

## Acute inhalation toxicity - Components

DIETHYLENE GLYCOL : LC Lo: 130 mg/m<sup>3</sup> Exposure time: 2 h Species: Mouse**Acute dermal toxicity**Acute dermal toxicity - : no data available  
Product

## Acute dermal toxicity - Components

ETHYLENE GLYCOL : LD 50: 9,530 mg/kg Species: Rabbit  
DIETHYLENE GLYCOL : LD 50: 11,890 mg/kg Species: Rabbit  
DIPOTASSIUM PHOSPHATE : LD 50: > 5,000 mg/kg Species: Rabbit Method: OECD Test Guideline 402**Acute toxicity (other routes of administration)**

Acute toxicity (other routes of administration) : no data available

**12. ECOLOGICAL INFORMATION****Biodegradability**

**SAFETY DATA SHEET**NAPA® ANTIFREEZE COOLANT  
NP001Revision Date: 12/02/2011  
Print Date: 7/26/2013  
MSDS Number: R0311762  
Version: 2.6

Biodegradability - Product : no data available

Biodegradability - Components

DIETHYLENE GLYCOL : 92 %

**Bioaccumulation**

Bioaccumulation - Product : no data available

Bioaccumulation - Components

ETHYLENE GLYCOL : Species: Crayfish (Procambarus) Exposure time: 61 d  
Concentration: 1,000 mg/l Bioconcentration factor (BCF):  
0.27 Method: Flow through**Ecotoxicity effects****Toxicity to fish**

Toxicity to fish - Product : no data available

Toxicity to fish - Components

ETHYLENE GLYCOL : LC 50: 27,540 mg/l  
Exposure time: 96 h  
Species: Bluegill (Lepomis macrochirus)  
Method: Static  
Remarks: Mortality  
  
LC 50: 8,050 mg/l  
Exposure time: 96 h  
Species: Fathead minnow (Pimephales promelas)  
Remarks: MortalityDIETHYLENE GLYCOL : LC 50: > 32,000 mg/l  
Exposure time: 96 h  
Species: Western mosquitofish (Gambusia affinis)  
Method: Static  
Remarks: Mortality**Toxicity to daphnia and other aquatic invertebrates.**Toxicity to daphnia and : no data available  
other aquatic invertebrates.

**SAFETY DATA SHEET**NAPA® ANTIFREEZE COOLANT  
NP001Revision Date: 12/02/2011  
Print Date: 7/26/2013  
MSDS Number: R0311762  
Version: 2.6**- Product****Toxicity to daphnia and other aquatic invertebrates. - Components**

ETHYLENE GLYCOL	: LC 50: > 10,000 mg/l
	Exposure time: 48 h
	Species: Water flea (Daphnia magna)
	Method: Static
	Remarks: Mortality

DIETHYLENE GLYCOL	: LC 50: > 10,000 mg/l
	Exposure time: 24 h
	Species: Water flea (Daphnia magna)
	Method: Static
	Remarks: Mortality

**Toxicity to algae**

Toxicity to algae -	: no data available
Product	

**Toxicity to bacteria**

Toxicity to bacteria -	: no data available
Product	

**13. DISPOSAL CONSIDERATIONS****Waste disposal methods**

Dispose of in accordance with all applicable local, state and federal regulations.

**14. TRANSPORT INFORMATION****REGULATION**

**SAFETY DATA SHEET**

Revision Date: 12/02/2011

Print Date: 7/26/2013

MSDS Number: R0311762

Version: 2.6

NAPA® ANTIFREEZE COOLANT  
NP001

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
-----------	----------------------	---------------	--------------------	---------------	------------------------------

**U.S. DOT - ROAD**

Not dangerous goods

**U.S. DOT - RAIL**

Not dangerous goods

**U.S. DOT - INLAND WATERWAYS**

Not dangerous goods

**TRANSPORT CANADA - ROAD**

Not dangerous goods

**TRANSPORT CANADA - RAIL**

Not dangerous goods

**TRANSPORT CANADA - INLAND WATERWAYS**

Not dangerous goods

**INTERNATIONAL MARITIME DANGEROUS GOODS**

Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**

Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

Not dangerous goods

**MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES**

Not dangerous goods

**\*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID**

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

**SAFETY DATA SHEET**NAPA® ANTIFREEZE COOLANT  
NP001Revision Date: 12/02/2011  
Print Date: 7/26/2013  
MSDS Number: R0311762  
Version: 2.6**15. REGULATORY INFORMATION****California Prop. 65**

Proposition 65 warnings are not required for this product based on the results of a risk assessment.

**SARA Hazard Classification****SARA 311/312 Classification**

Acute Health Hazard

**SARA 313 Component(s)**

ETHYLENE GLYCOL

95.01 %

**New Jersey RTK Label Information**

ETHYLENE GLYCOL	107-21-1
DIETHYLENE GLYCOL	111-46-6
WATER	7732-18-5
DIPOTASSIUM PHOSPHATE	7758-11-4

**Pennsylvania RTK Label Information**

ETHYLENE GLYCOL	107-21-1
DIETHYLENE GLYCOL	111-46-6

**Notification status**

US. Toxic Substances Control Act	y (positive listing)
Australia. Industrial Chemical (Notification and Assessment) Act	y (positive listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	y (positive listing)
Japan. Kashin-Hou Law List	n (Negative listing)
Korea. Toxic Chemical Control Law (TCCL) List	y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear	y (positive listing)

**SAFETY DATA SHEET**NAPA® ANTIFREEZE COOLANT  
NP001Revision Date: 12/02/2011  
Print Date: 7/26/2013  
MSDS Number: R0311762  
Version: 2.6

Waste Control Act	
China. Inventory of Existing Chemical Substances	y (positive listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	n (Negative listing)

**Reportable quantity - Product**

US. EPA CERCLA Hazardous Substances (40 CFR 302)	5262 lbs
--	----------

**Reportable quantity-Components**

ETHYLENE GLYCOL	107-21-1	5000 lbs
-----------------	----------	----------

	<b>HMIS</b>	<b>NFPA</b>
Health	2*	1
Flammability	1	1
Physical hazards	0	
Instability		0
Specific Hazard	--	--

**16. OTHER INFORMATION**

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).