NORTHLAND
MOTOR OILS • LUBRICANTS

Updated 08-10-2010
Supersedes 07-16-07
MSDS# 81P4

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **John Deere Cool-Gard II PG premix 60/40**

Product description: Propylene Glycol based Antifreeze/Coolant

MANUFACTURER:
Northland Products Company
1000 Rainbow Drive
Waterloo, IA 50704
319-234-5585, 1-800-772-1724

EMERGENCY TELEPHONE NUMBERS:
Chemtrec: 1-800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

	wt. Percent	CAS Registry #
Propylene Glycol	60 - 64	00057-55-6
Sodium Benzoate	< 3	00532-32-1
Water	40 max	07732-18-5

3. HAZARD IDENTIFICATION

Emergency Overview:

Blue Viscous Liquid, Not expected to produce significant adverse health effects when the recommended instructions for use are followed. Exposure should be minimized.

POTENTIAL HEALTH EFFECTS:

INHALATION:
Vapors are minimal under normal conditions but should be avoided, concentrations may reach levels that could cause irritation.

EYE CONTACT:
May cause slight temporary eye irritation. Corneal injury is unlikely. Vapors or mists may irritate eyes.

SKIN CONTACT:
Not considered a skin irritant or skin corrosive.

INGESTION:
Slightly hazardous in case of ingestion.

NOTE TO PHYSICIAN: Not available.

Hazardous Material Identification System (HMIS):
Health-1, Flammability-1, Reactivity-0, Personal Protection-B

4. FIRST AID MEASURES

INHALATION:
Remove the victim from the area to fresh air. Call a physician. Give oxygen if victim is breathing hard.

EYE CONTACT:
Check for and remove any contact lenses. Flush eyes with large amounts of water immediately for 15 minutes or until irritation subsides. If irritation persists, get medical attention.

SKIN CONTACT:
Wash affected areas thoroughly with soap and water. Remove contaminated clothing and wash them before wearing again. Call a physician if irritation persists.

INGESTION:
If swallowed, IMMEDIATELY contact a poison control center, emergency treatment center or a physician. Treat Symptomatically. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flash point	: >200°F (>93.3°C)
Flammable limits	: Lower: 2.6% / Upper: 12.5%
Autoignition Temperature	: 700°F (371°C)

GENERAL HAZARD:
No hazards under normal conditions; however, engine components can be at temperatures above the flash point.

FIRE FIGHTING INSTRUCTIONS:
Either allow fire to burn out under controlled conditions or extinguish with foam, CO_2, or dry chemical. Try to cover liquid spills with foam. Shut off fuel to fire if possible to do so without hazard.

FIRE FIGHTING EQUIPMENT:
NIOSH approved self-contained breathing apparatus and eye protection are required for fire fighting personnel on all indoor fires and any significant outdoor fires.

HAZARDOUS COMBUSTION PRODUCTS:
Acrid Smoke, carbon monoxide, carbon dioxide and water.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
Health-1, Flammability-1, Reactivity-0 (Based on components)

6. ACCIDENTAL RELEASE MEASURES

Take all actions necessary to prevent adverse effects of the spill. Eliminate ignition sources. Shut off leak if safe to do so. Dike spilled liquid with sand/earth and dispose of properly. DO NOT use sawdust or other combustible materials. Prevent product from entering sewers or waterways.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient STORAGE PRESSURE: Atmospheric

GENERAL:

Keep container closed. Loosen closure cautiously before opening. Store in well ventilated area away from incompatible materials. (See Section 10) Keep away from heat, sparks and flames. Empty container may still retain hazardous properties.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Use mechanical ventilation to control vapor concentrations in confined spaces. General ventilation should be sufficient for most operations.

PERSONAL PROTECTION:

Respirator:

Use an air supplied respirator when concentrations are over the exposure limits.

Protective Clothing:

For brief contact, no precautions are necessary.
Wear nitrile/neoprene gloves, nitrile/neoprene boots, a chemical worker's suit and chemical splash goggles as appropriate. After handling, wash hands with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling point	: 387°F approximately
Vapor pressure	: 0.0093 kPa @ 20°C
Vapor density	: 2.62 (Air = 1)
VOC Content	: 0% Wt
Solubility in water	: Completely miscible
Specific gravity	: 1.055 - 1.075 @ 60°F
pH	: 7
Odor	: Odorless
Appearance	: Clear, Blue
Physical state	: Liquid

10. STABILITY AND REACTIVITY

GENERAL:

This product is stable under normal storage conditions.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Oxidizing agents, Acids, Chloroformates.

HAZARDOUS DECOMPOSITION: None.

HAZARDOUS POLYMERIZATION: Will not occur

11. TOXICOLOGICAL INFORMATION

Acute effect on humans: Slightly hazardous in case of eye contact and ingestion. Chronic effects on humans: slightly hazardous in case of skin contact. Carcinogenic, Mutagenic, Teratogenic and Developmental effects are not available.
Acute oral toxicity [Rat] (LD50): 20000 mg/kg
Acute oral toxicity [Mouse] (LD50): 22000mg/kg
Acute Subcutaneously toxicity [Rabbit] (LD50): 28000 mg/kg

12. ECOLOGICAL INFORMATION

Result	Species	Exposure
Acute LC50 >1000 mg/L Marine water	Crustaceans - Chaetogammarus marinus - Young - 5 mm	48 hours
Acute LC50 1020000 ug/L Fresh water	Daphnia - Ceriodaphnia dubia - <=24 hours	48 hours
Acute LC50 710000 ug/L Fresh water	Fish - Pimephales promelas - <=7 days	96 hours
Chronic NOEC 660000 ug/L Fresh water	Daphnia - Ceriodaphnia dubia - <=24 hours	48 hours
Chronic NOEC 600000 ug/L Fresh water	Fish - Pimephales promelas - <=7 days	96 hours

13. DISPOSAL CONSIDERATIONS

Ensure disposal is in compliance with Federal-State-Local laws.

The generation of waste should be avoided or minimized wherever Possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, Solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORTATION INFORMATION

DOT (Department of Transportation):
Proper shipping name : Not Regulated
Hazard class : Not Regulated
Labeling : Not Regulated

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15. REGULATORY INFORMATION

WHMIS (Canada): Not Controlled

HCS (USA): Not Regulated

TSCA(Toxic Substance Control Act):
All components of this product are listed on the U.S. TSCA inventory. (1,2-Propylene glycol, Sodium Benzoate)

CERCLA(Comprehensive Response Compensation, and Liability Act):
This product is not subject to any special reporting under the requirements of CERCLA.

SARA TITLE III(Superfund Amendments and Reauthorization Act):
311/312 Hazard Categories:
This material is not classified as hazardous by OSHA under 29 CFR part 1910.1200(d).
313 Reportable Ingredients:
Contains no reportable compounds.

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16. OTHER INFORMATION

THE INFORMATION PRESENTED HEREIN HAS BEEN COMPILED FROM SOURCES CONSIDERED TO BE DEPENDABLE AND IS ACCURATE TO THE BEST OF NORTHLAND PRODUCTS COMPANY'S KNOWLEDGE; HOWEVER, NORTHLAND PRODUCTS COMPANY MAKES NO WARRANTY WHATSOEVER, EXPRESSED OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR THE PARTICULAR PURPOSE, REGARDING THE ACCURACY OF SUCH DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. NORTHLAND PRODUCTS COMPANY ASSUMES NO RESPONSIBILITY FOR THE INJURY TO THE RECIPIENT OR TO THIRD PARTY PERSONS OR FOR ANY DAMAGE TO ANY PROPERTY AND RECIPIENT ASSUMES ALL SUCH RISKS.