

# ProCool (Heat Transfer Fluid)

## 1. Product and Company Identification

<b>Name of Product:</b>	ProCool™, ProCool™-50, ProCool™-30 (includes all concentrations/dyes)	<b>Product Use:</b>	Heat Transfer Fluid
<b>Synonyms:</b>	Propylene Glycol Mixture	<b>Producer:</b>	Dynalene, Inc.
<b>Chemical Name/Class:</b>	Mixture	<b>Distributor Name:</b>	Alternate Energy Systems, Inc.
<b>CAS No.:</b>	Not applicable to mixtures	<b>Address:</b>	210 Prospect Park Peachtree City, GA30269, USA
<b>Emergency Phone:</b>	1-800-424-9300 (CHEMTREC)		Tel: 1-770-487-8596

## 2. Hazards Identification

<b>Hazard Statements:</b>	H315	Causes skin irritation	Category 2
	H320	Causes eye irritation	Category 2B

<b>Precautionary Statements:</b>	P624	Wash skin thoroughly after handling.
	P280	Wear protective gloves/eye protection/face protection.
	P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

GHS Pictogram:



Signal Word:

**Warning!**

## 3. Composition/Information on Ingredients

Ingredient	CAS No.	Percent
Propylene Glycol	57-55-6	15-100%
Inhibitor Solution	N/A	<12%

## 4. First Aid Measures

<b>Skin Exposure:</b>	If this product contaminates the skin, immediately begin decontamination with running water. Remove exposed or contaminated clothing, taking care not to contaminate eyes. The minimum recommended flushing time is 15 minutes. Contaminated individual must seek immediate medical attention, especially if irritation or redness develops.
<b>Eye Exposure:</b>	If this product enters the eyes, open victim's eyes while under gentle running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Contaminated individual must seek immediate medical attention, especially if symptoms persist.
<b>Inhalation:</b>	If vapors or mists of this product are inhaled, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.
<b>Ingestion:</b>	Hazards from swallowing this product is not expected to be serious. If symptoms develop, seek medical attention.

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## 5. Fire Fighting Measures

<b>Fire Extinguishing Materials:</b>	Water spray, carbon dioxide, foam, dry chemical, Halon, any "ABC" class.
<b>Unusual Fire and Explosion Hazards:</b>	I This product must be substantially pre-heated before ignition can occur. When involved in a fire, this material may decompose and produce irritating vapors and toxic gases (e.g., carbon oxides).
<b>Special Fire Fighting Procedures:</b>	Incipient fire responders should wear eye protection. Structural fire fighters must wear Self- Contained Breathing Apparatus and full protective equipment. Move fire-exposed containers if it can be done without risk to firefighters. If possible, prevent run-off water from entering storm drains, bodies of water, or other environmental areas. Decontaminate fire-response equipment with soap and water solution if necessary.

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## 6. Accidental Release Measures

<b>Spill and Leak Response:</b>	Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of an uncontrolled release, clear the affected area, protect people, and respond with trained personnel.
<b>Small Spill:</b>	Cover with absorbent material (floor absorbent, vermiculite, etc.). Soak up spill and place material into a drum.
<b>Large Spill:</b>	Personnel involved with large releases should wear protective equipment. Stop spill at source, dike the area surrounding the spill to prevent further exposure. Prevent material from entering sewer system. If pump is available, pump spilled material into 55-gallon drums for proper disposal. If necessary, absorbents such as vermiculite, clay floor absorbent may be used on spill and shoveled into drums.

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## 7. Handling and Storage

<b>General Hygiene Considerations:</b>	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the day.
<b>Storage and Handling Practices:</b>	All employees who handle this material should be trained to handle it safely. Use in a well- ventilated location. Open drums and other containers of this product slowly, on a stable surface. Drums and other containers of this product should be properly labeled. Empty drums and containers may contain residual amounts of this product, therefore, empty containers should be handled with care. Move drums of this product carefully, with the appropriate drum-handling equipment. Store drums and other containers in cool, dry locations, away from direct sunlight, or sources of intense heat. Storage areas should be made of fire-resistant materials. Keep containers away from incompatible chemicals.
<b>Protective Practices During Maintenance of Contaminated Equipment:</b>	Make certain application equipment is locked and tagged-out safely, if necessary. Decontaminate equipment using soapy water before maintenance begins.

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## 8. Exposure Controls/Personal Protection

<b>Airborne Exposure Limits:</b>	- OSHA Permissible Exposure Limit (PEL): - OSHA Short Term Exposure Limit (STEL): - OSHA Immediately Dangerous to Life or Health (IDLH): - ACGIH Threshold Limit Value (TLV): - ACGIH Short Term Exposure Limit (STEL):	none established none established none established none established none established
<b>Ventilation and Engineering Controls:</b>	Use with adequate ventilation to minimize exposure to mists or sprays of this product. Prudent practice is to ensure eyewash/safety shower stations are available near areas where this product is used. Monitoring of oxygen level is recommended. Decontaminate the area thoroughly. If necessary, decontaminate spill response equipment with soap and water solution.	

<b>Respiratory Protection:</b>	None needed for normal circumstances of use. If respiratory protection is needed, use only protection authorized in 29 CFR 1910.134, or applicable State regulations. Use supplied air respiration protection if oxygen levels are below 19.5% or are unknown.
<b>Eye Protection:</b>	Wear safety glasses with side shields.
<b>Hand Protection:</b>	Wear butyl rubber, natural rubber, neoprene, Nitrile rubber, or other suitable gloves for routine industrial use.
<b>Personal Protective Equipment Level:</b>	D

## 9. Physical and Chemical Properties

<b>Relative Vapor Density</b> (Air = 1):	2.62	<b>Physical State:</b>	Liquid
<b>Solubility in Water:</b>	Soluble	<b>pH:</b>	7.0 to 11.0
<b>Evaporation Rate</b> (N-Buac=1):	Not Available	<b>Partition Coefficient:</b>	logP = -1.41, -0.30
<b>Specific Gravity:</b>	1 – 1.1	<b>Decomposition Temperature:</b>	Not Available
<b>Melting Point</b> (for 95% concentration):	-60°F	<b>Flammability</b> (solid, gas):	Not Available
<b>Boiling Point:</b>	> 212°F	<b>Molecular Weight:</b>	Mixture
<b>Vapor Pressure</b> (at 68°F):	< 1mmHg	<b>Color:</b>	Clear
<b>Viscosity</b> (at 68°F):	> 1cp	<b>Flash Point</b> (for concentrations <80%):	None
<b>Odor:</b>	Odorless	<b>Autoignition Temperature:</b>	700°F
<b>Odor Threshold:</b>	Not Available	<b>Flammable Limits</b> (in air by vol %):	

## 10. Stability and Reactivity

<b>Stability:</b>	Stable under ordinary conditions of use and storage.
<b>Hazardous Decomposition Products:</b>	Mainly carbon dioxide and carbon monoxide.
<b>Materials With Which Substance Is Incompatible:</b>	Strong oxidizers, strong acids, acid chlorides, acid anhydrides, chloroformates, or strong reducing agents.
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Conditions to Avoid:</b>	Contact with incompatible chemicals and exposure to extremely high temperatures.

## 11. Toxicological Information

<b>Skin – Human:</b>	500 mg/7 Days; mild irritation effects
<b>Skin – Human:</b>	104 mg/3 days - Intermittent, moderate irritation effects
<b>Skin – Man:</b>	10%/2 days
<b>Eye effects-Rabbit, adult:</b>	100 mg, mild irritation effects
<b>Eye effects-Rabbit, adult:</b>	500 mg/24 hours, mild irritation effects
<b>DNA Inhibition-Mouse-Subcutaneous:</b>	8000 mg/kg
<b>Cytogenetic Analysis-Mouse-Subcutaneous:</b>	8000 mg/kg

<b>Cytogenetic Analysis-Hamster: fibroblast</b>	32 g/L
<b>Intraperitoneal-Mouse TDLo:</b>	100 mg/kg (15 days preg): Teratogenic effects
<b>Intraperitoneal-Mouse TDLo:</b>	100 mg/kg (11 days preg): Reproductive effects
<b>Oral-Child TDLo:</b>	79 g/kg/56 weeks, Intermittent: Central nervous system and brain effects
<b>Parenteral-Infant TDLo:</b>	10 g/kg/3 days - Continuous: systemic effects
<b>Oral-Rat LD50:</b>	20 g/kg
<b>Intraperitoneal-Rat LD50:</b>	6660 mg/kg
<b>Subcutaneous-Rat LD50:</b>	22,500 mg/kg
<b>Intravenous-Rat LD50:</b>	6423 mg/kg
<b>Intramuscular-Rat LD50:</b>	14 g/kg
<b>Oral-Mouse LD50:</b>	22 g/kg
<b>Intraperitoneal-Mouse LD50:</b>	9718 mg/kg
<b>Subcutaneous-Mouse LD50:</b>	17,370 mg/kg
<b>Intravenous-Mouse LD50:</b>	6630 mg/kg
<b>Suspected Cancer Agent</b>	This product's ingredients are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, CAL/OSHA, and therefore is not considered to be, nor suspected to be cancer causing agents by these agencies.
<b>Irritancy of Product:</b>	This product may cause irritation to contaminated tissues.
<b>Reproductive Toxicity Information:</b>	This product is not reported to produce mutagenic, embryotoxic, teratogenic, or reproductive effects in humans.
<b>Medical Conditions Aggravated By Exposure:</b>	It is anticipated that mainly skin and eye disorders may be aggravated after over-exposure.
<b>Recommendations to Physicians:</b>	Treat symptoms and eliminate over-exposure.
<b>Biological Exposure Indices:</b>	Currently, there are no Biological Indices (BEIs) associated with the components of this product.

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## 12. Ecological Information

<b>Environmental Stability:</b>	The components of this product will be degraded over time into organic compounds.
<b>Effect of Material on Plants or Animals:</b>	This product may be harmful to aquatic life if large quantities are released into bodies of water.
<b>Effect of Chemical on Aquatic Life</b>	This product may be harmful to aquatic life if large quantities are released into bodies of water.

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## 13. Disposal Considerations

Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

## 14. Transportation Information

<b>Proper Shipping Name:</b>	Not applicable.
<b>UN Number:</b>	Not applicable.
<b>Packing Group:</b>	Not applicable.
<b>Labels Required:</b>	Not applicable.
<b>Marine Pollutant:</b>	No component of this product is listed as a Marine Pollutant (49 CFR 172.101, Appendix B).
<b>Transport Canada Transportation of Dangerous Goods Regulations:</b>	This material is not considered as dangerous goods.

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## 15. Regulatory Information

<b>SARA Reporting Requirements:</b>	The components of this product are not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act.
<b>TSCA Inventory Status:</b>	The components of this product listed in Section 3 are on the TSCA Inventory.

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## 16. Other Information

<b>Revision Date:</b>	06 October 2014
<b>This MSDS was prepared by:</b>	Alternate Energy Systems, Inc., using data provided by Dynalene, Inc.

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Dynalene Heat Transfer Fluids or Alternate Energy Systems, Inc. assume no responsibility for injury to the vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Dynalene Heat Transfer Fluids or Alternate Energy Systems, Inc. assume no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.