



THERMOGUARD® UNIVERSAL EXTENDED LIFE 50/50 SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

PRODUCT: THERMOGUARD® UNIVERSAL EXTENDED LIFE 50/50

OTHER MEANS OF IDENTIFICATION:

THERMOGUARD UNIVERSAL HEAVY DUTY EXTENDED LIFE PRE-DILUTED
THERMOGUARD UNIVERSAL HEAVY DUTY EXTENDED LIFE 50/50

MATERIAL USES: ANTIFREEZE, COOLANT

PRODCUT TYPE: LIQUID, MIXTURE

SUPPLIER DETAILS: MARCUS PRODUCTS COMPANY
2954 STATE HWY KK, ROGERSVILLE, MO 65742
417-753-7722

EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC)

SECTION 2. HAZARDS IDENTIFICATION

Classification (GHS-US)

Acute Tox. 4 (Oral) H302
Repr. 1B H360
STOT RE 2 H373

GHS-US Labeling

Hazard Pictograms (GHS-US):



Signal Word (GHS-US):	Danger
Hazard Statements (GHS-US):	H302-Harmful if swallowed H360-May damage fertility of the unborn child H373-May cause damage to organs (Kidney) through prolonged or repeated exposure (oral)
Precautionary Statement:	P201-Obtain special instructions before use P202-Do not handle until all safety precautions have been read and understood. P260-Do not breathe mist, spray, vapors P264-Wash hands, forearms, and exposed areas thoroughly after handling. P270-Do not eat, drink or smoke when using this product. P280-Wear protective gloves/protective clothing/eye protection/face protection P301 + P310-If swallowed: Immediately call a POISON CENTER or doctor/physician P301+P330+P331: If swallowed: Rinse mouth. Do NOT induce vomiting. P305+P351: If in eyes: Rinse cautiously with water for several minutes. P304+P340+P312: If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell. P405-Store locked up P501-Dispose of contents/container in accordance with local and national regulations

Other Hazards: No additional information available

Unknown acute toxicity (GHS-US) No data available

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Material</u>	<u>CAS#</u>	<u>Percentage</u>
Ethylene Glycol	107-21-1	47-55
Diethylene Glycol	111-46-6	<5
Corrosion Inhibitor		<10
Water		>40

SECTION 4. FIRST AID MEASURES

Routes of Entry Inhalation – Primary
Skin/Eyes – Primary
Ingestion – Not likely to occur

CARCINOGENICITY: None Listed
Listed in NTP? No IARC Monographs? No OSHA Regulated? No

Signs & Symptoms of Exposure

Inhalation: Drunkenness, nausea, vomiting, visual impairment, rapid breathing, increased heart rate and decreased urine volume.

Eyes: Irritation/Tissue destruction develops immediately upon contact.

Medical conditions generally aggravated by exposure are breathing disorders, dermatitis and eye, kidney, liver disorders.

First Aid Procedures:

Eye Contact: Flush with water for 15 minutes

Skin Contact: wash skin with soap and water. Get medical attention if symptoms develop and persist

Ingestion: Do not induce vomiting. Drink large amounts of water to dilute material in stomach. Follow with milk. Never give fluids if the victim is unconscious or having convulsions. GET MEDICAL ATTENTION IMMEDIATELY.
Material can be fatal.

Inhalation: Remove victim to fresh air and if needed immediately begin artificial respiration. Give oxygen if breathing is labored. Get emergency Medical help. Contact Physician immediately.

SECTION 5: FIREFIGHTING MEASURES

Flash Point (Method): >200oF
Fire Hazard No specific fire or explosion hazard
Explosion Hazard Product is not explosive
Reactivity No dangerous reactions known

Extinguishing Media: Water Fog, Alcohol Foam, Carbon Dioxide and Dry Chemical.
Do not use a direct spray of water

Fire Fighting Procedures: Get people out of the area. Do not enter the fire area without full bunker equipment including NIOSH approved pressure supplied masks.

Unusual Fire Hazards: Containers may explode from internal pressure if confined to fire.
Cool with water. Keep unnecessary people away.

SECTION 6: ACCIDENTAL RELEASE MEASURES

General Measures: Avoid all eyes and skin contact and do not breathe vapor and mist
 Protective equipment: Chemical goggles or safety glasses. Clothing impervious to chemical penetration. Wear suitable gloves resistant to chemical penetration.

For Spill: In case of spillage absorb with inert material and dispose of in accordance with applicable regulations.

For Waste Disposal: EPA approved hazardous waste disposal site.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Avoid breathing mist/vapors/spray

Hygiene measures: Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Storage conditions: Keep only in the original container in a cool well ventilated place. Keep container closed when not in use.

Incompatible products: Strong acids, Strong oxidizers, Strong bases
 Incompatible materials: Sources of ignition.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Material	CAS#	PEL (OSHA)	TLV (ACGIH)	Percentage
Ethylene Glycol	107-21-1	50 ppm	50 ppm	47-55
Diethylene Glycol	111-46-6	None	None	<5
Corrosion Inhibitor				<10
Water				>40

Health Hazards

Acute: Prolonged exposure can be destructive to tissue especially eye tissue. Inhalation of vapors or mist may cause mucous membrane irritation. Ingestion can result in central nervous system depression, kidney injury and destruction of tissue, all of which could be fatal.

Chronic: Over exposure to vapors are associated with injuries to kidneys, liver, lungs, blood and central nervous system. Skin absorption can induce central nervous system depression and kidney and liver injury. Repeated ingestion can cause brain damage and destruction of tissue. Ethylene Glycol had caused birth defects or deaths in laboratory studies using pregnant mice and rats.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

pH (50% water solution)	8.6-11.0
Freeze Point @ 50% volume*	-34°F
Specific Gravity (Water=1)	1.11-1.145
Vapor Pressure (mm of Hg 20/C)	<0.1
Boiling Point	226°F
Vapor Density (Air=1)	NE
Evaporation Rate (BuAc=1)	Nil
Water Solubility	Complete
Appearance	GOLD/YELLOW
Odor	Mild

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known

Chemical Stability: Stable under normal conditions
Incompatible materials: Oxidizing agents, reducing agents and strong acids
Decomposition Products: From fire – oxides of carbon and nitrogen
Hazardous polymerization: Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity: Harmful if swallowed
LOWEST KNOWN LD50 (ORAL) 107-21-1 7712 Mg/kg (Rats)
LOWEST KNOWN LD50 (SKIN) 107-21-1 9530 Mg/kg (Rabbits)

SECTION 12: ECOLOGICAL INFORMATION

Persistence and Degradability: Not available
Avoid release to the environment

SECTION 13: DISPOSAL CONSIDERATIONS

Recommendation: Disposal must be made according to official regulations. Follow all local, state, and federal regulations.

Sewage disposal recommendations: Do not dispose of waste into sewer.

SECTION 14: TRNSPORT INFORMATION

Hazard Class: Not regulated, not considered a dangerous good for transport
DOT Shipping Name: Ethylene Glycol Antifreeze
UN/NA Number: Not regulated
Reportable Quantity: None

SECTION 15: REGULATORY INFORMATION

EPA hazard categories: Acute, chronic
Cercal RQ: 1 Pound based on Ethylene Glycol
SARA TITLE III: RQ – None; TPQ – None
SARA TITLE III, Section 313: Component – Ethylene Glycol. CAS – 107-21-1
Diethylene Glycol CAS-111-46-6
Disodium tetra borate, anhydrous CAS-1330-43-4

SECTION 15: OTHER INFORMATION

Disclaimer of Responsibility:
The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test date and the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

Footnotes: N/A – Not Applicable N/D – No Data
App. – Approximate EST. – Estimated
< - Less Than > - Greater Than