FANCYHEAT CORPORATION SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

PRODUCT NAME------ FANCYHEAT GLYCOL WICK

PRODUCT NUMBER(S)-----> 17700-F700, F705, F710, F715, F720, F725,

F730

TRADE NAMES AND SYNONYMS--> Ethanol, 2,2 –oxybis, DEG, Diglycol,

2-Hydroxyethyl ether

CAS-No: 111-46-6 CHEMICAL FAMILY: Glycols, Diols

RECOMMENDED USE: A liquid glycol warming fuel. USES ADVISED AGAINST: No information available

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: FANCYHEAT CORPORATION

Address: 40 VERONICA AVENUE

SOMERSET, NJ 08873

Telephone: 1-973-589-1450 Fax: 1-732-249-0087

Emergency Telephone Number

Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)
Acute toxicity, Oral (Category 4)
Specific target organ toxicity - repeated exposure, Oral (Category 2), Kidney

GHS Label elements, including precautionary statements



Pictogram

Signal word Warning

Hazard statement(s)

H302 Harmful if swallowed.

H316 Causes mild skin irritation.

H320 Causes eve irritation.

H373 May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

Precautionary statement(s)

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P314 Get medical advice/ attention if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/ container to an approved waste disposal plant.

3. <u>INGREDIENTS</u>

Ingredient	CAS No.	% by V Range	
	111-46-6 lo.203-872-2	 99 	 Acute toxicity, Oral (Category 4) STOT-RE Oral (Category 2), Kidney
Ethylene Glycol EC.N	603-140-00-6 107-21-1 0.203-473-3 603-027-00-1	 05 	 Acute toxicity, Oral (Category 4) STOT-RE – Oral (Category 2), Kidney
Triethylene Glycol EC-No	112-27-6 o. 203-953-2	 05 	 Not a hazardous substance

4. FIRST-AID PROCEDURES

INHALATION: Diethylene Glycol

GENERAL ADVICE: Show this safety data sheet to the doctor in attendance.

**FIRST AID- Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

SKIN CONTACT: Diethylene Glycol

**FIRST AID- Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts or water until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention immediately.

EYE CONTACT: Diethylene Glycol

**FIRST AID- Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flush. Consult a physician if irritation persists.

INGESTION: Diethylene Glycol

**FIRST AID- Do not induce vomiting. Never give anything by mouth to an unconscious person. Have patient drink several glasses of water. Consult a physician or poison control center, treat symptomatically.

5. FIRE FIGHTING MEASURES

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL.

Uniform Fire Code: Combustible Liquid III-B

Flash Point: 253°F CC LEL %:2.0

Auto-ignition Temp: 702°F UEL %:12.3

SUITABLE EXTINGUISHING MEDIA: - Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->

ADVICE FOR FIREFIGHTERS: Shut off source. Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind Do not spray pool fires directly. A solid stream of water or foam directed into hot burning liquid can cause frothing. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Cool containers with flooding amounts of water from as far a distance as possible. Wear NIOSH approved self-contained breathing apparatus for confined spaces and full protective gear.

<u>UNUSUAL FIRE AND EXPLOSION HAZARDS:</u> Diethylene Glycol mist in air is a moderate fire and explosion hazard. Keep containers tightly closed.

Sensitivity to Mechanical Impact: No Sensitivity to Static Discharge: No

HAZARDOUS COMBUSTION PRODUCTS: Carbon Oxides

6. ACCIDENTAL RELEASE MEASURES

<u>PERSONAL PROTECTIVE MAEASURES</u>: Avoid contact with eyes. Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

METHODS FOR CONTAINMENT AND CLEAN UP: Shut off valves, contain spill, keep out of water sources and sewers. Dike area to contain spill, recover liquid for reuse or reclamation. Next add absorbent to pick up residual material in the spill area. Collect saturated absorbent and place in approved container for disposal. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations. Keep all nonessential people away.

7. HANDLING AND STORAGE

<u>PERSONAL PRECAUTIONARY MEASURES</u>: Liquid quickly evaporates and forms vapor (fumes), which can catch fire and burn. Invisible vapor spreads easily and can be set on fire by many sources, such as pilot lights, welding equipment, and electrical motors and switches. Vapor is heavier than air and can travel considerable distance to a source of ignition and flash back. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid

contact with eyes, skin and clothing. Do not take internally.

<u>HANDLING INFORMATION</u>: Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers.

<u>CONDITIONS FOR SAFE STORAGE</u>: Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Do not store above 120°F. Store large quantities only in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Keep containers closed when not in use.

<u>CONTAINER WARNINGS</u>: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner.

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

EXPOSURE GUIDELINES:

Ingredient	CAS No.	% by WT. Range	Exposure Limits	
Diethylene Glycol	111-46-6	 99-100 	 10ppm TWA(WEEL) 	
Ethylene Glycol	107-21-1	 05 	 50ppm TLV(ACGIH) 50ppm PEL(OSHA)	
Triethylene Glycol	112-27-6	 05 	 N.E. 	

Key: (PEL) = Permissible Exposure Limit OSHA

(TLV) = Threshold Limit Value OSHA & ACGIH

(STEL) = Short Term Exposure Limit ACGIH

(WEEL) = USA. Workplace Environmental Exposure Levels

(TWA) = Time Weighted Average

CAS = Chemical Abstracts Registry Number

IDLH = Immediate Danger to Life and Health

N.E. =None Established

EXPOSURE GUIDELINES: Consider the potential hazards of this material (Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

<u>ENGINEERING CONTROLS</u>: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

RESPIRATORY PROTECTION: No protective equipment is needed under normal use conditions. For vapor concentrations 1 to 10 times WEEL use a NIOSH/MSHA Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times WEEL and in confined areas use an approved positive pressure full face-piece supplied air respirator.

<u>BODY CLOTHING</u>: No protective equipment is needed under normal use conditions. However employees must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

<u>SKIN PROTECTION</u>: No protective equipment is needed under normal use conditions. However employees must wear appropriate protective gloves to prevent contact with this substance. Rubber or neoprene chemical resistant gloves.

<u>EYE/FACE PROTECTION</u>: No protective equipment is needed under normal use conditions. However employees should use safety eyewear with splash guards or face shield.

Shower and eyewash should be easily accessible to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE, COLOR AND ODOR: Diethylene glycol is a clear colorless slightly viscous liquid with no distinct odor

ODOR THRESHOLD: No Data Available

pH: 5.0 - 8 at 500 g/l at 20 °C (68 °F)

MOLECULAR WEIGHT:

MELTING POINT:

BOILING POINT:

SPECIFIC GRAVITY:

106.12 amu

-10 °C (14 °F)

245 °C (473 °F)

1.118@25°C

DENSITY (25°C): 1.118 g/ml @25°C

VAPOR PRESSURE: 0.006 mm Hg @ 25°C (77.0°F)

VAPOR DENSITY: 3.66
WATER SOLUBILITY: Complete

PARTITION COEFFICIENT N- log Pow: -2.0

OCTANOL/WATER

FLASH POINT: 143 °C (289 °F) - closed cup

EVAPORATION RATE (BUTYL ACETATE=1): <0.001

UPPER FLAMMABILITY LIMIT: 12.3% (V)

LOWER FLAMMABILITY LIMIT: 2.0% (V)

AUTO INGNITION TEMPERATURE: 372°C (702°F)

DECOMPOSITION TEMPERATURE: No data available

VISCOSITY: No data available

EXPLOSIVE PROPERTIES: No data available

OXIDIZING PROPERTIES: No data available

OTHER INFORMATION: No data available

10. STABILITY AND REACTIVITY INFORMATION

CHEMICAL STABILITY: Unstable () Stable (X)

POSSIBILITY OF HAZARDOUS REACTIONS: None under normal processing

<u>CONDITIONS TO AVOID</u>: Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame. At elevated temperatures explosive decomposition may occur.

<u>INCOMPATIBLE MATERIALS</u>: Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide. Zinc

<u>HAZARDOUS DECOMPOSITION PRODUCTS</u>: Fumes, Smoke, Carbon Monoxide and Carbon Dioxide.

HAZARDOUS POLYMERIZATION: May occur () Will not occur (X)

11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x

ACUTE HEALTH EFFECTS:

Eye> Mildly irritating; reddening of the conjunctiva;

Skin> Mildly irritating:

Inhalation>Low vapor pressure at ambient temperature indicating that it has limited inhalation hazard. Vapor formed by heating the material may cause respiratory tract irritation.

Ingestion> If consumed in sufficient quantity (0.5-5.0g/kg) may produce lethal response. May cause gastrointestinal distress, pain in lumbar region, nausea, vomiting, dizziness drowsiness, decreased urine production, malaise, loss of consciousness, kidney and liver damage.

Chronic: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose. Damage may occur to the kidney or liver.

Medical Conditions Aggravated by Exposure> Individuals with pre-existing skin, central nervous system or impaired kidney or liver function should avoid contact with this material.

ACUTE TOXICITY:

The effects of overexposure shown in Section II are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50(Rat) Skin LD50(Rabbit) Inhalation LC50				
Diethylene Glycol	 12500mg/kg	12000mg/kg	 130mg/m3/2hr		
Ethylene Glycol	 4700mg/kg				
Triethylene Glycol					

MUTAGENIC EFFECTS: No information available.

CARCINOGEN STATUS: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, ACGIH, and OSHA.

REPRODUCTIVE TOXICITY: No data available.

Specific target organ toxicity (STOT-SE)- single exposure (Globally Harmonized System) no data available

Specific target organ toxicity (STOT-RE)- repeated exposure (Globally Harmonized System) May cause damage to organs through prolonged or repeated exposure. Oral - Kidney

ASPIRATION HAZARD: No data available

ADDITIONAL DATA: No data available

RTECS: ID5950000

12. **ECOLOGICAL INFORMATION**

AQUATIC TOXICITY:

LC50 96-hour Fish (Fathead Minnow) 72,500 mg/L LC50 96-hour Fish (Mosquitofish) >32,000 mg/L LC50 48-hour (Water flea) 84,000 mg/L LC50 24-hour (Brine shrimp) >10,000 mg/L LC50 48-hour (Clawed toad) 3,065 mg/L IC(PGR) 7-day (Green algae) 2,700 mg/L

WATERFOWL TOXICITY: None available

<u>PERSISTANCE AND DEGRADABILITY:</u> anaerobic - Exposure time 28 d Result: 90 - 100 % - Readily biodegradable.

BIOLOGICAL OXYGEN DEMAND (BOD): BOD 28-day 50-60% theoretical BOD

BIOACCUMULATION: Octanol/Water Partition Coefficient: log Pow: -2.0

BIOCONCENTRATION FACTOR (BCF): 100

FOOD CHAIN CONCENTRATION POTENTIAL: None noted

13. **DISPOSAL CONSIDERATIONS**

WASTE TREATMENT METHODS:

Diethylene Glycol is a non hazardous solid waste as defined by RCRA (40CFR261). Dispose in accordance with all applicable disposal regulations. Recover for reuse or reclamation.

CONTAMINATED PACKAGING: Dispose of as unused product.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

14. TRANSPORT INFORMATION

USDOT Shipping Name-----> Not Regulated USDOT Hazard Classification----> Not Regulated USDOT Label Codes----> N/A

USDOT Package Code-----> N/A USDOT ID Number----> N/A Emergency Response Guide-> N/A

IMDG

Not dangerous goods

IATA

Not dangerous goods

15. **REGULATORY INFORMATION**

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355)- Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65)- Listed Ethylene Glycol CAS 107-21-1 <0.5%

SECTION 311/312: Hazard Categorization (40 CFR 370)- Ethylene glycol CAS 107-21-1 <0.5%; Acute Health Hazard and Chronic Health Hazard

<u>CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)</u>

SECTION 102(A) Hazardous Substances (40 CFR 302.4)- Not Listed Ethylene glycol CAS 107-21-1 <0.5%; Reportable Quantity – 5000lbs. SECTION 101(14) Reportable Quantity: 5000lbs

Massachusetts Right To Know Components
Ethylene glycol CAS 107-21-1
Pennsylvania Right To Know Components
Diethylene glycol CAS-No.111-46-6
Ethylene glycol CAS 107-21-1
New Jersey Right To Know Components
Ethylene glycol CAS 107-21-1
Diethylene glycol CAS-No.111-46-6

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substance Control Act)

Diethylene Glycol CAS 111-46-6 & Ethylene glycol CAS 107-21-1 are listed on the TSCA Inventory.

16. OTHER INFORMATION:

HMIS (Hazardous Materials Identification System)

Hazard Rating:

4-Extreme

3-High

2-Moderate

1-Slight

0-Insignificant

NFPA RATINGS (SCALE 0-4): Health=1 Fire=1 Reactivity=0 HMIS RATINGS (SCALE 0-4) Health=1 Fire=1 Reactivity=0

Date of preparation----> February 24, 2005

Revision Number----> 1.6

Revision Date----> February 24, 2015

Prepared by-----> T. G. Fenstermaker, Jr.

Acronyms:

ACGIH - American Conference of Governmental Industrial Hygenists

AIHA - American Industrial Hygiene Association ANSI - American Nation Standards Institute

API - American Petroleum Institute

CERCLA - Comprehensive Emergency Response, Compensation, and Liability Act

DOT - U.S. Department of Transportation

EPA - U.S. Environmental Protection Agency

HMIS - Hazardous Materials Information System

IARC - International Agency For Research On Cancer

MSHA - Mine Safety and Health Administration NFPA - National Fire Protection Association

NIOSH - National Institute of Occupational Safety and Health

NOIC - Notice of Intended Change (Proposed change to ACGIH TLV)

NTP - National Toxicology Program
OPA - Oil Pollution Act of 1990

OSHA - U.S. Occupational Safety & Health Administration

PEL - Permissible Exposure Limit (OSHA)
RCRA - Resource Conservation and Recovery Act
REL - Recommended Exposure Limit (NIOSH)

SARA - Superfund Amendments and Reauthorization Act of 1986 Title III

SCBA - Self-Contained Breathing Apparatus

STEL - Short-Term Exposure Limit (generally 15 minutes)

TLV - Threshold Limit Value

TSCA - Toxic Substances Control Act
TWA - Time Weighted Average (8hr.)

WHMIS - Canadian Workplace Hazardous Materials Information System

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its label. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.						