

MATERIAL SAFETY DATA SHEET

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| | | NFPA HAZARD |
| ADDRESS: HeatCell 96 Trolley Street Jane Lew, WV 26378 (304) 326-2623 | DATE: 08/21/98 PREPARED BY: Dr. Burch Stewart | CLASSIFICATIONS H = HEALTH F = FLAMMABILITY R = REACTIVITY NF = NOT FOUND H = 1 F = 1 R = 1 |
| I. IDENTIFICATION | | |
| LABEL NAME: | FOOD WARMER | |
| TRADE OR PRODUCT NAME: | Heat Cell | |
| FDA NO.: | CAS NO.: Diethylene Glycol CAS 00111-46-6 | |

II. FIRE, EXPLOSION AND REACTIVITY DATA

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| FLASH POINT (METHOD): | 246°F (104°C) Cleveland Open Cup | 0 = LEAST 1 = SLIGHT 2 = MODERATE 3 = HIGH 4 = EXTREME |
| EXTINGUISHING MEDIA: DRY CHEMICAL, FOAM OR CO ₂ | DOT HAZARD CLASSIFICATION: NOT REQUIRED | |

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| SPECIAL FIRE FIGHTING PROCEDURES: | NONE |
| UNUSUAL FIRE AND EXPLOSION HAZARDS: | UNKNOWN, Believed to be relatively safe. |

HAZARDOUS COMBUSTIBLE OR DECOMPOSITION PRODUCTS:

Product consists of a two phase mixture of the two components stabilized by tightly packed fiber wool to give an essentially non-spillable mass. The components are contained in a metal can with a metal lid. The mass is not ignitable at room temperature. To ignite, apply flame directly to glass fibers. Can produce carbon monoxide and some irritants under some burning conditions. Glass fibers caused cancer in animals through unnatural routes of exposure (surgical implantation), but it is not associated with cancer by inhalation. Use of glass fibers has not been shown to cause cancer in humans. If ingestion of glass fibers occur, observe individual for several days to ensure that intestinal blockage does not occur. It is not recommended to induce vomiting if ingested.

TABILITY: Stable CONDITIONS TO AVOID: Excessive Heat. MATERIALS TO AVOID: Strong Oxidizers.

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HAZARDOUS POLYMERIZATION PRODUCTS: NA Will not occur.

I. PHYSICAL DATA

II

ODOR, APPEARANCE AND PHYSICAL STATE:

Slightly opaque colorless liquid with subtle petroleum solvent odor.

BOILING POINT: 433°F 223°C

SPECIFIC GRAVITY (H₂O = 1.0):
1.117 @ 68°F (20°C)

MELTING POINT: NA

EVAPORATION RATE: < 1 (Butyl Acetate = 1)

VAPOR PRESSURE:(mm/Hg) < 1@20°C, DEG = 0.01

SOLUBILITY IN WATER: Partially Miscible

VAPOR DENSITY (AIR = 1): > 1

. PROTECTION INFORMATION

IV

RESPIRATORY: Use MSHA or NIOXH respirator for handling vapor or mist.

VENTILATION: Always use with Good ventilation.

EYE: Safety glasses for working with vapors or mists.

SKIN: Protective gloves or clothing generally not needed.

OTHER PROTECTIVE DEVICES AND PROCEDURES: Generally not required. Avoid prolonged breathing of mist. Wash hands after handling. Wash soiled work clothing frequently.

. OCCUPATIONAL EXPOSURE LIMIT

V

THRESHOLD LIMIT VALUE (TLV): NF

OSHA PERMISSIBLE EXPOSURE LIMIT (PEL): NF

HAS THE SUBSTANCE BEEN LISTED AS A CARCINOGEN OR POTENTIAL CARCINOGEN IN THE ANNUAL REPORT ON CARCINOGENS, PUBLISHED BY NTP, BY THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER, OR BY OSHA? YES
_ NO _

I. HEALTH HAZARD INFORMATION

V

HEALTH HAZARD DETERMINATION:

INHALATION: *Acute:* Irritation, especially with mists. *Chronic:* Irritation.

SKIN CONTACT: *Acute:* Defatting, irritation and mild discomfort. *Chronic:* Same as Acute.

INGESTION: *Acute:* May cause headache, nausea, dizziness. *Chronic:* Renal damage.

SIGNS AND SYMPTOMS OF EXPOSURE.

Possible drowsiness, behavior changes, vomiting, diarrhea due to DEG poisoning. For advanced stages, renal damage or failure.

MEDICAL SYMPTOMS GENERALLY AGGRAVATED BY EXPOSURE:

Nervous system damage, renal weakness and dermatitis.

II. EMERGENCY AND FIRST AID PROCEDURES

V

INHALATION EXPOSURE: Remove to fresh air, get medical attention if symptoms persist.

EYE CONTACT: Flush with water, get medical attention if symptoms persist.

SKIN CONTACT: Wash with soap and water, get medical attention if needed.

INGESTION: Drink 2 glasses of water and induce vomiting immediately, get medical attention. If convulsing or unconscious, do not induce vomiting or give medication.

III. SPILL, LEAK AND DISPOSAL PROCEDURES

V

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED:
Contain spills with absorbent material (clay, soil, etc.) Shovel up. Avoid skin and eye contact. Dispose of in accordance with local, state and federal regulations.

WASTE DISPOSAL METHODS:

In accordance with local, state and federal regulations for glycols. Package should be opened and contents soaked up with absorbent materials.

. HANDLING AND STORAGE PROCEDURES

IX

Avoid skin and eye contact. Avoid breathing mists. Do not overheat. Do not mix with other fuels or oxidizing agents. Use proper breathing apparatus for extended handling of mist or liquid.

. CHEMICAL AND COMMON NAMES

X

Diethylene glycol and isoparaffin mixture.

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