ENVIRONMENTAL FLUIDS USA LLC
EF® E-1450 NF

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ORIGINAL DATE: 01/06/2009
REVISED DATE: 06/12/2009

PRODUCT NAME	**EF® E-1450 NF**
Common Chemical Name:	POLY (OXY, 1-2 ETHANEDIOL), ALPHA, HIDRO, OMEGA, HYDROXY
Synonyms:	Polyethyleneglycol E-1450 NF
Molecular Formula:	HO-CH2-CH2-(OCH2CH2) n-OCH2CH2-OH
Chemical Family:	Polyethyleneglycols
Molecular Wt.:	1450 g/mol

Chemical Name:	Polyethylene Glycol	**PEL/TLV:**	NOT ESTABLISHED
CAS:	25322-68-3		
Amount:	100.0%		

EMERGENCY OVERVIEW

Color:	White
Form/Appearance:	White Solid
Odor:	Characteristic

WARNING STATEMENT: CAUTION
May cause irritation contact
May cause irritation to skin upon prolonged or repeated contact

POTENTIAL HEALTH EFFECTS

PRIMARY ROUTES OF EXPOSURE:
Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

ACUTE OVEREXPOSURE EFFECTS:
Inhalation may result in respiratory irritation. Ingestion may result in gastric disturbances.

CRONIC OVEREXPOSURE EFFECTS:
There are no known chronic effects associated with this material.

FIRST AID PROCEDURES – AGGRAVATED MEDICAL CONDITIONS:
No data is available which addresses medical conditions that are generally recognized as being aggravated by exposure to this product. Please refer to Section 3 (Effects of Overexposure) for effects observed in animals.

EYE CONTACT:	Polyethylene glycols cause little or no irritation if accidentally splashed in the eye. If such contact occurs, the response is transitory, similar to that caused by a mild soap.
SKIN CONTACT:	Polyethylene glycols cause little or no significant skin irritation and do not cause sensitization. A single, prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts. The LD50 for skin absorption. In rabbits is greater tan 20 g/kg. There is some indication that prolonged or repeated exposure of damaged skin, as in burn wounds, to polyethylene glycol may result in absorption of toxic amounts.
INHALATION:	Due to the physical properties of polyethylene glycols, vapors are minimal at room temperature. No effects would be expected from exposure to vapors generated at room temperature. However, at elevated temperatures polyethylene glycols may decompose, generating vapors which could be irritating. For operations at elevated temperatures, adequate ventilation or exhaust is recommended.
INGESTION:	The acute oral toxicity of polyethylene glycols is extremely low. Excessively large quantities would have to be taken orally to produce systemic injury, and the possibility of ingesting toxic quantities is remote under normal handling conditions.

FIRST AID PROCEDURES - Skin:

Wash affected areas with soap and water. Remove and launder contaminated clothing before reuse. Get immediate medical attention.

FIRST AID PROCEDURES - Eyes:

Immediately rinse eyes with running water for 15 minutes. Get immediate medical attention:

FIRST AID PROCEDURES - Ingestion:

If swallowed, dilute with water and immediately induce vomiting. Never give fluids or induce vomiting if the victim is unconscious or having convulsions. Get immediate medical attention.

FIRST AID PROCEDURES - Inhalation:

Move to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

FIRST AID PROCEDURES - Notes to Physician:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

FIRST AID PROCEDURES - Aggravated Medical Conditions:

No data is available which addresses medical conditions that are generally recognized as being aggravated by exposure to this product. Please refer to Section 3 (Effects of Overexposure) for effects observed in animals.

FIRST AID PROCEDURES - Special Precautions:

None

	Typical	Low/High	Deg.	Method
Flash Point:	>225°		**°C**	C.O.C.
Autoignition:	N/A			
Inf. Limits:	N/A			
Density (aire=1)	N/A			

Extinguishing Media:

Use water fog, foam, CO2 or dry chemical.

Fire Fighting Procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear.

Unusual Hazards:

Avoid possible spontaneous combustion by disposal of combustible material soaked with this product.

General:

Spills and leaks should be contained and collected with an absorbent material and deposited in a proper container for their disposition or confinement. This material is not regulated by the RCRA or CERCLA. During the cleaning of this material, a proper breathing apparatus and protection clothes should be worn.

General:

Store in a ventilated storage area between 20 – 25 °C. Avoid excessive temperatures, low or high. Avoid moisture.

Other Storage and Handling Data:

The tank should be equipped with provisions for padding with a dry inert gas under slight pressure to further ensure product quality. A pressure-vacuum relief valve should be installed on the tank. Inside float gauges, differential telegauges, or orifice meters can be utilized as measuring devices. Heated Polyglykol should be recycled or agitated to lessen the possibility of local hot spots. Transfer and recycle lines of a heated storage tank should also be heat-traced and insulated. Reciprocating pumps or centrifugal pumps may be used for polyethylene glycol transfers. For higher viscosity products, a positive displacement pump may be required.

Clothing:

Gloves, coveralls, apron, boots as necessary to prevent skin contact.

Eyes:

Chemical goggles; also wear a face shield if splashing hazard exists.

Respiration:

Approved organic vapor mist respirator as necessary.

Ventilation:

Use local exhaust to control vapors/mists.

Explosion Proofing:

None required.

Other:

N/A

Color:	White
Form/Appearance:	White Solid
Odor:	Characteristic
Odor Intensity:	N/A

	Typical	Low/High	U.O.M.
Specific Gravity:	1.124		@ 25° / 25°C
Viscosity:	29.0	24 / 32	cSt. @ 98.9°C
PH:	6.0	4.5 / 7.5	Sol. Ac. 5% @ 25°C

	Typical	Low/High	Deg.	Pressure
Boiling Point:	N/A			
Freezing Point:	44°		°C	
Critical Temperature	N/A			
Solubility in Water:	Total			

	Typical	Low/High	U.O.M.	Temperature
Solubility:	100		%	
Vapor Density (Air 1):	N/A			

Stability Data:

Stable

Incompatibility:

Avoid moisture to protect product quality.

Conditions/Hazards to Avoid:

Avoid contamination with alkalis and Exposure to moisture and temperatures > 80°C.

Hazardous Decomposition:

Hazardous decomposition products: CO and C02.

Hazardous Polymerization:

Not occur.

Corrosive Properties:

Not Corrosive.

Oxidizer Properties:

Not an Oxidizer

Other reactivity Data:

None known.

Experience gained on human beings.

LD50 male rats, oral:	44.7 g/kg.
LD50 male rabbits, oral:	>50 g/kg.
LD50 pig's guinea:	41.0 g/kg.
LC50 mice, oral:	>50 g/kg.
LD50 intraperitoneal toxicity in mice:	3.1 (g/kg) ²

Biological eliminability: Good

Experience has shown that Polyethylene glycol does not give rise to any troubles in water treatment plants, if the principles of sound industrial practice are observed.

Waste Disposal:

Incinerate or bury in a licensed facility. Do not discharge into waterways or sewer systems without proper authority.

Container Disposal:

Steel drums must be emptied (as defined by RCRA, Section 261.7 or state regulations that may be more stringent) and can be sent to a licensed drum reconditioned for reuse, a scrap metal dealer or an approved landfill. Drums destined for a scrap dealer or landfill t be punctured or crushed to prevent reuse.

TSCA Inventory status

Listed on Inventory:	Yes		
RCRA Has. Waste No.:	N/A		
CERCLA:	NO	**Reportable Qty.:**	(if Yes)

State Regulation Information: (by component)	**NJ/PA/MA**	**RTK**
CAS:	25322-68-3	EX
Name:	Polyethylene Glycol E-1450 NF	

REGULATORY INFORMATION

Spills should be contained, solidified, and placed in suitable containers for disposal, this material is not regulated under RCRA or CERCLA.

Hazard Ratings:

	Health:	Fire:	Reactivity:	Special:
HMIS:	1	0	0	N/A

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