

# AMERICAN CHEMICAL TECHNOLOGIES

## MATERIAL SAFETY DATA SHEET

**Product Name:** Neptune 220

**Effective Date:** 08/09/2007  
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American Chemical Technologies encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### 1.1 IDENTIFICATION

**Product Name**        Neptune 220

#### 1.2 COMPANY IDENTIFICATION

American Chemical Technologies  
485 E. Van Riper Rd.  
Fowlerville, MI 48836  
USA

#### 1.3 EMERGENCY TELEPHONE NUMBER

(INFOTRAC) 1-800-535-5053  
Customer Information Number: 1-800-938-0101 or 1-517-223-0300.

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## 2. HAZARDS IDENTIFICATION

### 2.1 EMERGENCY OVERVIEW

**Appearance** Yellow to orange

**Physical State** Liquid

**Odor** Mild

**Hazards of product** No significant immediate hazards for emergency response are known.

### 2.2 POTENTIAL HEALTH EFFECTS

**Inhalation** At room temperature, exposure to vapor is minimal due to low volatility; single exposure is not likely to be hazardous. Vapor from heated material or mist may cause respiratory irritation.

**Eye Contact** May cause slight temporary eye irritation. Corneal injury is unlikely.

**Skin Contact** Brief contact is essentially nonirritating to skin. Prolonged contact may cause slight skin irritation with local redness.

**Skin Absorption** Prolonged skin contact is unlikely to result in absorption of harmful amounts.

**Ingestion** Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

**Effects of Repeated Exposure** Excessive exposure may cause lung injury.

## 3. COMPOSITION INFORMATION

<b>Component</b>	<b>CAS #</b>	<b>Amount (%W/W)</b>
Polyalkylene glycol	Trade Secret	> 96.0 %
Additives	Trade Secret	< 4.0 %

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## 4. FIRST AID MEASURES

**Eye Contact** Flush eyes thoroughly with water for several minutes. Remove contact lenses

**Skin Contact** Wash skin with plenty of water.

**Inhalation** Remove victim to fresh air.

**Ingestion** No emergency medical treatment necessary.

Notes to Physician No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## 5. FIRE FIGHTING MEASURES

**Extinguishing Media** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

**Fire Fighting Procedures** Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

**Special Protective Equipment for Firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

**Unusual Fire and Explosion Hazards** Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

**Hazardous Combustion Products** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide. Combustion products may include trace amounts of: Nitrogen oxides.

## 6. ACCIDENTAL RELEASE MEASURES

**Steps to be Taken if Material is Released or Spilled** Contain spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

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**Personal Precautions** Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Refer to Section 7, Handling, for additional precautionary measures.

**Environmental Precautions** Prevent from entering into soil, ditches, sewers, waterways and/ or groundwater. See Section 12, Ecological Information.

## 7. HANDLING AND STORAGE

### Handling

**General Handling** No special precautions required.

**Other Precautions** Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

### Storage

Store in the following material(s): 316 stainless steel. carbon steel. glass-lined container. Polypropylene. Polyethylene lined container. stainless steel. Teflon. This material may soften and lift certain paint and surface coatings. Use product promptly after opening. Store in original unopened container. Unopened containers of material stored beyond the recommended shelf life should be retested against the sales specifications before use.

**Storage Period:** 24 Months

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Limits** None established

### PERSONAL PROTECTION

**Eye/Face Protection** Use safety glasses

**Skin Protection** Wear clean, body-covering clothing

**Hand Protection** Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

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**Respiratory Protection** For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge.

**Ingestion** Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

## **ENGINEERING CONTROLS**

**Ventilation** Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State** Liquid

**Color** Yellow to orange

**Odor** Mild

**Flash Point - Open Cup** 229 °C (444 °F) *ASTM D92*

**Flammable Limits In Air Lower:** No test data available

**Upper:** No test data available

**Vapor Pressure** < 0.01 mmHg @ 20 °C *ASTM E1719*

**Specific Gravity (H<sub>2</sub>O = 1)** 1.035 20 °C/20 °C

**Freezing Point** See Pour Point

**Solubility in Water (by weight)** 100 %

**pH** Not applicable

**Kinematic Viscosity** 220 cSt @ 40 °C *ASTM D445*

**Pour point** -41 °C (-42 °F) *ASTM D97*

## **10. STABILITY AND REACTIVITY**

**Stability/Instability** Thermally stable at typical use temperatures

**Conditions to Avoid** Do not distill to dryness. Product can oxidize at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

**Incompatible Materials** Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

**Hazardous Polymerization** Will not occur.

**Thermal Decomposition** Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Ketones. Organic acids.

## **11. TOXICOLOGICAL INFORMATION**

### **Acute Toxicity**

**Ingestion** Approximate LD50, Rat 20,600 mg/kg

**Skin Absorption** Approximate LD50, Rabbit 20,000 mg/kg

**Inhalation** Approximate LC50, Aerosol, Rat 0.33 mg/l

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## **Sensitization**

**Repeated Dose Toxicity** Exposure to high concentrations of mist/aerosol may be associated with delayed lung damage.

## **12. ECOLOGICAL INFORMATION**

### **CHEMICAL FATE**

Data for Component: **Polyalkylene glycol**

#### **Movement & Partitioning**

No bioconcentration is expected because of the relatively high molecular weight.

#### **Persistence and Degradability**

Based largely or completely on information for similar materials. Polyglycols with a molecular weight >2000 are not expected to be readily biodegradable. Material is inherently biodegradable (reaches >20% biodegradation in OECD tests for inherent biodegradability).

### **ECOTOXICITY**

Data for formulated product:

Material is practically non-toxic to fish on an acute basis: LC50 = 707 mg/L.

## **13. DISPOSAL CONSIDERATIONS**

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. American Chemical Technologies HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device.

## **14. TRANSPORT INFORMATION**

### **DOT Non-Bulk**

NOT REGULATED

### **DOT Bulk**

NOT REGULATED

### **IMDG**

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NOT REGULATED

ICAO/IATA

NOT REGULATED

*This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.*

## **15. REGULATORY INFORMATION**

### **Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

<b>Immediate (Acute) Health Hazard</b>	Yes
<b>Delayed (Chronic) Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Reactive Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No

### **Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

### **Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

### **Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous**

#### **Substances List:**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

### **US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

### **California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

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This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

## **US. Toxic Substances Control Act**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

## **European Inventory of Existing Commercial Chemical Substances (EINECS)**

This product is a polymer according to the definition in Directive 92/32/EEC (7th Amendment to Directive 67/548/EEC) and all of its starting materials and intentional additives are listed in the European Inventory of Existing Commercial Chemical Substances (EINECS) or in compliance with European (EU) chemical inventory requirements.

## **CEPA - Domestic Substances List (DSL)**

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

## **16. OTHER INFORMATION**

### **Hazard Rating System**

#### **NFPA**

#### **Health**

1

#### **Fire**

1

#### **Reactivity**

0

### **Recommended Uses and Restrictions**

Selection of the appropriate polyglycol product for a specific application requires knowledge of the fluid requirements of the application, awareness of the most important of these requirements, and a matchup with the properties of the various polyglycol materials. Polyglycol products can be formulated for use in numerous industry applications such as hydraulic fluids, quenchants, compressor and refrigeration lubricants, heat transfer fluids, machinery lubricants, solder assist fluids, metalworking lubricants, etc.

### **LEGEND**

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
WEEL	Workplace Environmental Exposure Level
HAZ_DES	Hazard Designation

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*American Chemical Technologies urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that its activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.*