

**MATERIAL SAFETY DATA SHEET: PG501****1. PRODUCT INFORMATION:**

<b>PRODUCT NAME:</b> PG501	<b>PRODUCT USE:</b> Propylene glycol – Technical grade.
<b>MANUFACTURER/SUPPLIER:</b> Vedra Industries, 6295 Northam Dr., Unit 16, Mississauga, Ontario, Canada L4V-1W8	<b>EMERGENCY TELEPHONE NUMBER:</b> (877) 211-6727 or 905-405-9444.

**2. PREPARATION INFORMATION:**

<b>MSDS PREPARED BY:</b> Vedra Industries	<b>DATE PREPARED:</b> Oct. 1, 2006 (M/D/Y)
<b>TELEPHONE:</b> (877) 211-6727	<b>SUPERSEDES:</b> Oct. 25, 2005 (M/D/Y)

**3. HAZARDOUS INGREDIENTS**

INGREDIENT	CHEMICAL NAME	CAS REGISTRY NO.	% BY WT.
1	Propylene Glycol	57-55-6	100%

INGREDIENT	ACUTE ORAL LD50 (mg/kg)	ACUTE DERMAL LD50 (mg/kg)	ACUTE INHALATION LC50 (ppm)	TLV
1	5000 (rabbit)	9500 (rabbit)	Not available	100 mg/m <sup>3</sup>
2	175 (mouse)	Not available	Not available	Not available

The balance of the components are not hazardous according to WHMIS classifications and are not listed on the Ingredient Disclosure List.

**4. PHYSICAL DATA:**

<b>APPEARANCE:</b> Clear, colorless, odorless, viscous, hygroscopic liquid	<b>PHYSICAL STATE:</b> Liquid	<b>ODOUR:</b> None	<b>ODOUR THRESHOLD:</b> None, odourless
<b>DENSITY (g/ml @ 25°C):</b> 1.038	<b>EVAPORATION RATE:</b> 1 (water = 1.0)	<b>VAPOUR DENSITY:</b> 2.6 (air=1)	<b>VAPOUR PRESSURE @ 20 °C:</b> 0.07 mmHg / 0.009 kPa
<b>pH (neat):</b> Not tested	<b>pH (1000 ppm in water)</b> Not tested	<b>BOILING POINT:</b> 188°C	<b>FREEZING /MELTING POINT:</b> -60 °C
<b>OIL/WATER PARTITION COEFFICIENT:</b> Not tested		<b>SOLUBILITY:</b> Completely soluble in water; also soluble in alcohols, ketones & ethers	

**5. FIRE AND EXPLOSION HAZARDS:**

<b>FLASH POINT &amp; METHOD:</b> 99°C (closed cup)	<b>AUTO-IGNITION TEMPERATURE:</b> 371°C
<b>UPPER FLAMMABLE LIMIT (% vol. in air):</b> 2.6% - 12.5%	<b>LOWER FLAMMABLE LIMIT (% vol. in air):</b> Not Applicable
<b>FLAMMABILITY CONDITIONS:</b> Can burn if strongly heated	<b>HAZARDOUS COMBUSTION PRODUCTS:</b> Oxides of carbon, Oxides of nitrogen
<b>EXTINGUISHING MEDIA:</b> Alcohol-type foam, dry chemical, water fog, water spray to cool below flash point, water jet may spread flames.	<b>SPECIAL FIRE FIGHTING PROCEDURES:</b> Firefighters must wear SCBA. Wear NIOSH approved self-contained breathing apparatus (such as "Scott Air-Pak"), and full protective gear. Isolate "fuel" supply from fire.
<b>EXPLOSION (Sensitivity to Mechanical Impact):</b> Not sensitive	<b>EXPLOSION (Sensitivity to Static Discharge):</b> . Not sensitive

**6. REACTIVITY:**

<b>CHEMICAL STABILITY:</b> Stable, will not polymerize	<b>CONDITIONS OF UNSTABILITY:</b> Extreme temperatures
<b>INCOMPATIBILITY WITH OTHER SUBSTANCES:</b> Strong acids	<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b> None known.

**7. TOXICOLOGICAL DATA:****PRIMARY ROUTES OF EXPOSURE:**

<b>EYES:</b> Yes	<b>SKIN:</b> Yes	<b>INHALATION:</b> Yes	<b>INGESTION:</b> Yes
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**EFFECTS FROM ACUTE EXPOSURE:**

Eye exposure:	Mildly irritating
Skin exposure:	Virtually without effect ( <i>irritation has been reported in 16% of 866 dermatitis patients</i> )
Inhalation:	Vapour or mist are apparently without effect (10% vapor apparently harmless to humans)
Ingestion:	Little or no effect; at lethal dose, convulsions and pulmonary edema may occur

**EFFECTS FROM CHRONIC EXPOSURE:**

The effects from chronic exposure to this product have not been fully evaluated.

**ACUTE EFFECTS (Exposure Limits):**

<b>Acute Oral LD50:</b>	18,300 mg/kg (oral, guinea pig)
<b>Acute Dermal LD50:</b>	21,000 mg/kg (skin, rabbit)
<b>Acute Inhalation LC50:</b>	No data available.
<b>IRRITANT EFFECTS:</b>	Concentrated water solutions, held against the skin, are reported to irritate
<b>SENSITIZATION EFFECTS:</b>	None known.
<b>CARCINOGENIC POTENTIAL:</b>	Not listed in any of OSHA Standards Section 1910.1200 sources as carcinogenic.
<b>REPRODUCTIVE TOXICITY:</b>	None known.
<b>TERATOGENICITY:</b>	None known.

<b>MUTAGENICITY:</b>	None known.
<b>SYNERGISTIC EFFECTS:</b>	None known.

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### 8. PERSONAL PROTECTION EQUIPMENT:

**Hands:** Chemical resistant gloves recommended.

**Eyes:** Chemical-proof goggles or face shield recommended.

**Respiratory:** If misting can occur, a NIOSH approved respirator is recommended.

**Body Protective Clothing:** None required

**Footwear:** Steel-toed chemical resistant boots recommended.

**Other:** An emergency shower complete with eyewash fountain is recommended.

#### **ENGINEERING CONTROLS:**

General mechanical ventilation system is adequate. However, local exhaust system is preferred to maintain airborne concentrations below the recommended occupational exposure limits, whenever misting conditions are present or the material is used in a confined space.

#### **LEAK AND SPILL PROCEDURES:**

Before responding to a spill or leak of this product, review each section of this MSDS. Follow the recommendations given in the "Handling Procedures and Equipment" section. Check the "Fire and Explosion Hazards" section to determine if the use of non-sparking tools is merited. Insure that spilled or leaked product does not come into contact with materials listed as incompatible. If irritating fumes are present, consider evacuation of affected areas. Initially minimize area affected by the spill or leak. Block any potential routes to water systems. Place in a properly labeled container for later disposal. Larger spills may require a vacuum.

#### **WASTE DISPOSAL METHODS:**

Disposal shall be in accordance with all applicable federal, provincial and municipal waste regulations.

#### **HANDLING PROCEDURES AND EQUIPMENT:**

Do not handle unless the safety precautions have been read and understood. Avoid skin and eye contact. Avoid inhalation of dust or vapours. Do not puncture, drag or slide containers. Do not smoke in any chemical handling or storage area. Wash hands before eating.

#### **STORAGE REQUIREMENTS:**

Store in a dry well-ventilated location. Protect from freezing. Keep containers tightly closed. Store away from incompatible materials and ignition sources

#### **SPECIAL SHIPPING INFORMATION:**

Refer to Section 10: T.D.G. Classification

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### 9. FIRST AID MEASURES:

#### **EYE EXPOSURE:**

Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is any irritation.

#### **SKIN EXPOSURE:**

Wash with soap and plenty of water. Remove contaminated clothing and do not reuse until thoroughly cleaned or laundered.

#### **INHALATION:**

Remove from contaminated area promptly. **CAUTION: Rescuer must not endanger himself!** If breathing stops, administer artificial respiration and seek medical aid promptly.

**INGESTION:**

Give plenty of water to dilute product. Do not induce vomiting (see below). Keep victim quiet. If vomiting occurs, keep victim's head below the hips to prevent inhalation of vomited material. Seek medical help promptly. Inadvertent inhalation of vomited material may seriously damage the lungs. The risk and danger of this is greater than the risk of poisoning through absorption of this product. The stomach should be emptied under medical supervision, after the installation of an airway to protect the lungs.

**10. REGULATORY CLASSIFICATIONS:**

**TDG CLASSIFICATION: NOT REGULATED**

**Pest Control Products Act: REGISTRATION NUMBER:** Not applicable.

**U.S. FDA REGULATIONS: FDA (21 CFR) Section(s):**

Not determined

**WHMIS CLASSIFICATION: NOT REGULATED**

**DOMESTIC SUBSTANCES LIST (DSL):**

All Components are listed on the DSL or otherwise comply with the Canadian Environmental Protection Act (CEPA) new substance notification requirements.

**HAZARD RATING:**

<b>RATING</b>	<b>HEALTH</b>	<b>FLAMMABILITY</b>	<b>REACTIVITY</b>
<b>WHMIS</b>	<b>2</b>	<b>0</b>	<b>1</b>
<b>NFPA</b>	<b>2</b>	<b>0</b>	<b>1</b>

While the information and recommendations set forth are believed to be accurate as of the date of the Material Safety Data Sheet, Vedra Industries makes no warranty with respect thereto and disclaims all liability from reliance thereon. Vedra Industries urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. To promote the safe use and handling of this product, each customer or recipient should distribute this MSDS to the product users.

Issued by Laboratory Services, Vedra Industries, 6295 Northam Dr., Unit 16,  
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