

Pro-Tek EG

MSDS# SCM-123

March 2012

6 pages

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: ProTek-EG

Manufactured By: Specialty Chemical Manufacturing

Address: 1633-B High Bridge Road, Quincy, FL 32351, USA

Emergency Phone No.: +1813.248.0585 24 Hours, 7 Days, Chem-Tel, Inc.

Date Revised: 9 March 2012

Name Of Preparer: A. Jernigan

2. HAZARDS IDENTIFICATION

Physical State: Liquid.

Odor: Odorless.

Osha/hcs status: this material is considered hazardous by the OSHA hazard communication standard (29 cfr 1910.1200).

General information: read the entire msds for a more thorough evaluation of the hazards.

Emergency overview: Danger! May be fatal if swallowed. May cause respiratory tract, eye and skin irritation. Contains material that may cause target organ damage, based on animal data. Birth defect hazard - contains material which can cause birth defects. Aspiration hazard if swallowed - can enter lungs and cause damage. This product is not to be used in food, drug, cosmetic, or potable water applications. This product is not to be used to produce fogs or mists in theatrical, musical, or other entertainment performances.

Very toxic if swallowed. Slightly irritating to the eyes, skin and respiratory system.

Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist.

Do not ingest. Do not get on skin or clothing. Avoid contact with eyes.

Contains material that may cause target organ damage, based on animal data.

Contains material which can cause birth defects. Avoid exposure during pregnancy.

Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Potential Health Effects

Eye: May cause minor eye irritation.

Skin: No significant adverse effects are expected under anticipated conditions of normal use. Repeated, prolonged exposure may cause slight flaking, tenderness, and softening of skin.

Ingestion: Harmful if swallowed Aspiration hazard if swallowed - can enter lungs and cause damage. Can cause liver and kidney damage if swallowed.

Inhalation: may cause dizziness and drowsiness. If effects do occur, refer to FIRST AID in Section 4.

SIGNS AND SYMTOMS OF OVEREXPOSURE: Same as above

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Material and/or its emissions may aggravate preexisting eye disease.

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3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	CAS No.	EINECS No.	% BY WT.	Hazard Symbol	Risk Phrases
1,2-ethanediol (Ethylene glycol)	107-21-1	203-473-3	40-95	Xn	R23, R36
Phosphoric acid, dipotassium salt	7758-11-4	231-834-5	0-3	C, T, Xi,	R22, R35, R36

The meaning of Risk Phrases can be found in Section 15.

4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if attention if pain, blinking, tears or redness persist.

Skin Contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion: Treatment with ethyl alcohol is indicated if toxic ingestion is suspected or if there is metabolic acidosis following ingestion of this product. Administer ethyl alcohol sufficient to maintain blood ethyl alcohol levels of above 100 mg/dL.

Immediately flush eyes with large amounts of water for 15 minutes, lifting lower and upper lids. Obtain medical Product is not expected to present a significant skin hazard under anticipated conditions of normal use.

If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

Notes to physician : Ethylene glycol (EG) is nephrotoxic. End stages of poisoning may include renal damage or failure with acidosis. Supportive measures, supplemented with hemodialysis if indicated, may limit the progression and severity of toxic effects.

For ethylene glycol poisoning, intravenous ethanol is a recognized antidotal treatment; other antidotal treatments also exist for EG poisoning. Contact a Poison Center for further treatment information.

Aspiration of this product during induced emesis may result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. 4-Methylpyrazole (Fomepizole, Antizole) is also a recognized antidote for this product.

Contact a Poison Center for additional treatment information.

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5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use carbon dioxide, dry chemical, alcohol type foam, water spray, water fog to extinguish surrounding fires involving this product.

SPECIAL FIRE FIGHTING PROCEDURES: Wear positive pressure, self-contained breathing apparatus and other protective apparatus as warranted. Fight fire from distance or protected location – heat may build up pressure and rupture closed containers. Liquid may form slippery film. Notify authorities if liquid enters sewers/ public waters.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Heat from fire can generate flammable vapor. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air and travel long distances along ground before igniting and flashing back. Fine sprays and mists may be combustible at temperatures below normal flash point.

6. ACCIDENTAL RELEASE MEASURES

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Prevent flow to sewers and public waters as it may contaminate said water. Restrict usage to prevent slip/fall hazard. Soak up small spills with inert solids. Dike and recover large land spills. Notify appropriate authorities if product enters any waterways.

7. HANDLING AND STORAGE

Product on surfaces can cause slippery conditions. Practice reasonable care and cleanliness. Avoid breathing spray mists if generated. Keep out of reach of children. Do not store near food, foodstuffs, drugs or potable water supplies.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

ACGIH TLV (United States, 1/2007): C: 100 mg/m³ 0 hour(s). Form: Aerosol

OSHA PEL 1989 (United States, 3/1989): CEIL: 125 mg/m³ 0 hour(s); CEIL: 50 ppm 0 hour(s).

Consult local authorities for acceptable exposure limits.

Respiratory Protection: No special respiratory protection equipment is recommended under normal conditions of anticipated use with adequate ventilation.

Ventilation: Adequate general ventilation is required, local exhaust is recommended if possible.

Protective Gloves: Not required.

Eye Protection: Safety goggles and face shield. Emergency eyewash should be available. Contact lenses should not be worn when working with this chemical.

Engineering Controls: Keep containers closed when not in use.

Personal Hygiene: If product handling results in skin contact, wash hands and other exposed areas with mild soap and water before eating, drinking, smoking, or using the toilet facilities. Promptly remove soiled clothing and wash before reuse.

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9. PHYSICAL/CHEMICAL CHARACTERISTICS

Appearance: Pink liquid

Odor: Odorless

Odor threshold: None

pH: 9.5-10.5

Melting point/freezing point: <13 °C (-8.6°F)

Initial boiling point and boiling range: >198°C (388°F)

Flash point: 111°C, TCC

Evaporation rate: n.a

Flammability limits %:

Vapor pressure: <0.013kPa@20°C

Vapor density (Air=1): 2.2

Relative density: 1.04-1.09

Solubility: 100% water soluble

Partition Coefficient: n-octanol/water: -1.36

Auto-ignition temperature: >398°C (748°F)

Decomposition temperature: n.a.

Viscosity: ~1.87cSt@20°C

Explosive properties: Not applicable

Oxidizing properties: Not applicable

n.a. = not available

10. STABILITY AND REACTIVITY

Stability and Reactivity: Stable

Conditions To Avoid: Heat, sparks, open flame.

Materials To Avoid: Strong alkalis, strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide and other toxic vapors.

Hazardous Polymerization: Not expected to occur under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION

Skin: (Draize) Believed to be > .50 - 1.00 /8.0 (rabbit) slightly irritating

Eyes: (Draize) Believed to be > 15.00 - 25.00 /110 (rabbit) slightly irritating

Sensitization: Not determined.

Oral: Animal data does not reflect human toxicity; see Sections 3 & 11

Inhalation: Not determined.

Dermal: LD50 Believed to be > 1.00 - 2.00 g/kg (rabbit) slightly toxic

IRRITATION INDEX, ESTIMATION OF IRRITATION (SPECIES)

Oral administration of ethylene glycol to pregnant experimental animals has been shown to cause birth defects in the offspring. These effects were not seen when ethylene glycol was administered by dermal application or by inhalation.

Continuous ingestion of a diet containing 1% or 2% ethylene glycol for two years produced liver and kidney damage, and bladder stones in rats.

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12. ECOLOGICAL INFORMATION

Product/Ingredient Name: Ethylene glycol

Aquatic Ecotoxicity (Acute LC50): 8050mg/L, Fresh water fish 96 hours

Biodegradability: >60 % Ethylene glycol, Readily biodegradable, 28 days

Environmental Fate

Persistence and Biodegradability: This product is considered to be readily biodegradable and is not expected to persist in the environment

Potential to Bioaccumulate: Log P_{ow} -1.36 Low bioaccumulation potential

13. DISPOSAL CONSIDERATIONS

Avoid or minimize generating waste wherever possible.

Empty containers or liners may retain some product residues.

This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

UN Number: Not assigned

UN Proper Shipping Name: None

Transport Hazard Class(es): None

Packing group: None

Environmental Hazards:

ADR/RID Transport Information Not dangerous for transport under ADR/RID, IMO and IATA/ICAO regulations.

ADR/RID Class None Allocated

ADR/RID Packing Group None Allocated

IMDG Hazard Class None Allocated

IMDG Packing Group None Allocated

ADNR Class None Allocated

ADNR Item None Allocated

IATA Hazard Class None Allocated

IATA Packing Group None Allocated

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

Depending on container size, spills of this product may require reporting under SARA 304 and/or CERCLA 102(A) regulations.

Please refer to Sections 2 and 14 of MSDS for composition and component RQ information.

The transport regulations may change in the different countries. Check for the appropriate regulations in the country of transport or usage of this product.

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15. REGULATORY INFORMATION

Xi Irritant

R-Phrases

R22: Do not breathe dust

R23: Do not breathe vapor or spray

R35: This material and its container must be disposed of in a safe way.

R36: Wear suitable protective clothing

Federal Regulations:

SARA Title III:

Section 302/304 Extremely Hazardous Substances: Listed. **RQ:** 5000 pounds

Chemical Name CAS Number 1,2-ethanediol 107-21-1

Section 311 Hazardous Categorization:

CERCLA 102(a)/DOT Hazardous Substances: Acute X Chronic X Fire Pressure Reactive N/A

Section 313 Toxic Chemical

Chemical Name	CAS Number	Range in %
1,2-ethanediol (Ethylene glycol)	107-21-1	40-99.99%

TSCA Inventory Status: This product, or its components, are listed on or are exempt from the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

States Right-to-Know Regulations:

California Prop. 65: Not listed

State list: CT (Connecticut), FL (Florida), IL (Illinois), MI (Michigan), LA (Louisiana), MA (Massachusetts), NJ (New Jersey), PA (Pennsylvania), RI (Rhode Island)

INTERNATIONAL REGULATIONS:

WHMIS Classification:

Class D, Div 1, Subdiv B: Toxic Class D, Div 2, Subdiv A: Teratogenic

Canadian Inventory Status: This product, or its components, are listed on or are exempt from the Canadian Domestic Substance List (DSL).

EINECS Inventory Status: This product, or its components, are listed on or are exempt from the European Inventory of Existing Chemical Substances (EINECS) or the European List of Notified Chemical Substances (ELINCS).

Australian Inventory Status: This product, or its components, are listed on or are exempt from the Australian Inventory of Chemical Substances (AICS).

Japan Inventory Status: Not determined

16. OTHER INFORMATION

HMIS III Classification:

Health: 2

Fire: 1

Reactivity: 0

This information is, to the best of our knowledge and belief, accurate and reliable as of the date completed. However no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the completeness and suitability of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer any warranty against patent infringement.