

TEKNECAL

SCREEN PRINT SUPPLIES INC.

Material Safety Data Sheet

TRADE NAME: **TEK-405**
DEGREASER

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Id: TEK-405
Product Name: TEK-405 Degreaser
CAS#: Mixture
Synonyms: None
Chemical Family: Glycol ether
Application: Screen printing mesh degreaser
Manufactured by: Teknecal Screen Print Supplies Inc.
733 Industrielle Street
Unit 6
Rockland, Ontario K4K 1T2
Prepared by: The Health and Safety Department of Teknecal Screen Print Supplies Inc.
Preparation date: January 27th, 2016
Telephone number: 1-800-547-9318 / 613-446-7171
24-Hour Emergency Telephone Number (CANUTEC): (613) 996-6666

This product is a preparation. Health hazard information is based on its components.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percentage (W/W)	Cas #	LD50s and LC50s Route & Species:
Ethylene Glycol Monobutyl Ether	1-5	111-76-2.	Oral LD50 (Mouse) 1167 mg/kg Oral LD50 (Mouse) 1230 mg/kg Oral LD50 (Rat) 400 mg/kg Oral LD50 (Rat) 470 mg/kg Oral LD50 (Rat) 530 mg/kg Oral LD50 (Rat) 917 mg/kg Oral LD50 (Rabbit) 320 mg/kg Oral LD50 (Guinea Pig) 1200 mg/kg Dermal LD50 (Rabbit) 220 mg/kg Dermal LD50 (Rabbit) 99 mg/kg Inhalation LC50 (Rat) 450 ppm/4H Inhalation LC50 (Mouse) 700 ppm/7H Inhalation LC50 (Mouse) 3380 mg/m ³ /7H Inhalation LC50 (Rat) 2900 mg/m ³ /7H
Tomadol® 900 Surfactant	3-7	68439-46-3	Oral LD50: >2,000 mg/kg (Rat) Dermal LD50: 3,300 mg/kg (Rat)

3. HAZARDS IDENTIFICATION

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Potential Acute Health Effects

- Eye contact:** May cause severe eye irritation and corneal injury. Symptoms include pain, redness and tearing. Effects may be slow to heal.
- Skin contact:** Brief contact may cause slight irritation with itching and local redness. Prolonged or repeated exposure may cause skin irritation, even a burn. May cause more severe reaction if the product sticks to the skin or the skin has abrasions or cuts. Prolonged skin contact will probably not cause the absorption of harmful amounts.
- Inhalation:** May cause irritation of the respiratory tract. Symptoms of exposure may include sore throat, coughing and sneezing. May cause headache.
- Ingestion:** Harmful if swallowed. Moderately toxic. Small amounts swallowed incidental to normal handling operations are not likely to cause injury. Large doses are harmful if swallowed.

4. FIRST AID MEASURES

- Eye contact:** In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
- Skin contact:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.
- Inhalation:** Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.
- Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Seek medical attention.
- Note to physician:** Treatment based on sound judgment of physician and individual reactions of patient.

5. FIRE FIGHTING MEASURES

- Flash Point:** 65°C / 185°F.
- Flash Point Method:** Tag Closed Cup.
- Auto Ignition Temperature:** 244°C / 471°F
- Flammable Limits in Air (%):** Lower: 1.3% Upper: 10.6%.
- Extinguishing Media:** Use DRY chemicals, CO₂, alcohol foam or water spray.

- Special Exposure Hazards:** Isolate and restrict area access. Stop leak only if safe to do so. Move containers from fire area if you can do it without risk. Fight fire from a safe distance and from a protected location. Use flooding quantities of water for fire and water spray or fog for vapors. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure build-up which could result in container rupture. This material may produce a floating fire hazard in extreme fire conditions. This product can produce flammable vapors which may travel to a source of ignition and flash back. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

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**Hazardous Decomposition/
Combustion Materials
(under fire conditions):**

Carbon monoxide. Carbon dioxide. The smoke may contain unidentified toxic and/or irritating compounds.

**Special Protective
Equipment:**

Fire fighters should wear full protective clothing, including self-contained breathing equipment.

NFPA RATINGS FOR THIS PRODUCT ARE: HEALTH 2, FLAMMABILITY 2, INSTABILITY 0.
HMIS RATINGS FOR THIS PRODUCT ARE: HEALTH 2, FLAMMABILITY 2, REACTIVITY 0.

6. ACCIDENTAL RELEASE MEASURES

**Personal Precautionary
Measures:**

Wear appropriate protective equipment.

**Environmental Precautionary
Measures:**

Prevent entry into sewers or streams, dike if needed.

Procedure for Clean Up:

Isolate hazard area and restrict access. Stop leak only if safe to do so. Remove ignition sources and work with non-sparking tools.
Small spills: soak up with absorbent material and scoop into containers.
Large spills: prevent contamination of waterways. Dike and pump into suitable containers. Clean up residual with absorbent material, place in appropriate container and flush with water.

7. HANDLING AND STORAGE

Handling:

For industrial use only. Handle and open containers with care. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid inhalation of chemical. Do NOT handle or store near an open flame, heat, or other sources of ignition. Fixed equipment as well as transfer containers and equipment should be grounded to prevent accumulation of static charge. DO NOT pressurize, cut, heat, or weld containers. Empty containers may contain hazardous product residues. Keep the containers closed when not in use. Protect against physical damage. Use appropriate personnel protective equipment. Spills of these organic liquids on hot fibrous insulations may lead to lowering of the auto ignition temperature possibly resulting in spontaneous combustion.

Storage:

Store in a cool, dry, well ventilated area, away from heat and ignition sources. Place away from incompatible materials. Store in accordance with good industrial practices. Do not store in aluminum, copper, copper alloys and galvanized containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls:

Local exhaust ventilation as necessary to maintain exposures to within applicable limits.

Respiratory protection:

If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved respirator. In case of spill or leak resulting in unknown concentration, use a NIOSH approved supplied air respirator.

Gloves:

Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butyl rubber gloves, polyethylene gloves, ethyl

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vinyl alcohol laminate (EVAL). Examples of acceptable glove barrier materials include: Viton gloves, natural rubber gloves, polyvinylchloride (PVC) gloves, nitrile gloves.

Skin protection: Impervious clothing. Rubber apron. The selection of personal protective equipment varies depending upon conditions of use.

Eyes: Chemical goggles. If exposure causes eye discomfort, use a full-face shield.

Other personal protection data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

Ingredients	Exposure Limit ACGIH	Exposure Limit OSHA	Immediately Dangerous to Life or Health IDLH
Ethylene Glycol Monobutyl Ether	20 ppm (97mg/m ³) TLV-TWA	50 ppm (240 mg/m ³), skin, PEL-TWA	700 ppm
Tomadol® 900 Surfactant	Not available	Not available	Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid.	Vapor Pressure:	0.4 mmHg 20°C.
Color:	Colorless.	Vapor Density:	Not available.
Odor:	Sweet Ether.	% Volatile by Volume:	100% Wt @ 20°C.
pH:	Not available.	Evaporation Rate:	0.06.
Specific Gravity:	0.9005 – 0.9040 @ 20°C.	Solubility:	Soluble in water.
Boiling Point:	>100°C / 212°F.	VOCs:	Not available.
Freezing/Melting Point:	-77°C / -106°F.	Viscosity:	Not available.
		Molecular Weight:	118.2 g/mol.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Avoid excessive heat, open flames and all ignition sources. Product can oxidize at elevated temperatures. Avoid contact with metals such as: zinc, magnesium, aluminum and galvanized metals. Do not distill to dryness. Generation of gas during decomposition can cause pressure in closed systems.

Materials to Avoid: Oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products:

Aldehydes. Ketones. Organic acids.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Ingestion: Harmful if swallowed. Moderately toxic. Small amounts swallowed incidental to normal handling operations are not likely to cause injury. Large doses are harmful if swallowed.

Skin contact: Brief contact may cause slight irritation with itching and local redness. Prolonged or repeated exposure may cause skin irritation, even a burn. May cause more severe reaction if the product sticks to the skin or the skin has abrasions or cuts. Prolonged skin contact will probably not cause the absorption of harmful amounts.

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Inhalation: May cause irritation of the respiratory tract. Symptoms of exposure may include sore throat, coughing and sneezing. May cause headache.

Eye contact: May cause severe eye irritation. May cause corneal injury. Symptoms include pain, redness and tearing. Effects may be slow to heal.

Additional information: Excessive exposure to ethylene glycol monobutyl ether may cause hemolysis, thereby impairing the blood's ability to transport oxygen. Repeated exposure may cause red blood cell hemolysis, leading to possible kidney and liver damage.

Acute Test of Product

Acute Oral LD50: Not available.

Acute Dermal LD50: Not available.

Acute Inhalation LC50: Not available.

Ingredients	IARC Carcinogens	ACGIH Carcinogens
Ethylene Glycol Monobutyl Ether	Group 3	A3
Tomadol® 900 Surfactant	Not listed	Not listed

12. ECOLOGICAL INFORMATION

Ingredients	Ecotoxicity Fish Species Data	Acute Crustaceans Toxicity:	Ecotoxicity Freshwater Algae Data
Ethylene Glycol Monobutyl Ether	LC50 96 h (Lepomis macrochirus) 1490 mg/L static LC50 96 h (Lepomis macrochirus) 2950 mg/L	Not available	Not available
Tomadol® 900 Surfactant	LC50 96 h (Pimephales promelas) 8.5 mg/l	EC50 48 h (Daphnia) 5.3 mg/l	Not available

Other Information: Material is practically non-toxic to fish on an acute basis.

13. DISPOSAL CONSIDERATIONS

Disposal of waste method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.

Contaminated packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

DOT (U.S.)

DOT Shipping Name: Not regulated.

DOT Hazardous Class: Not applicable.

DOT UN Number: Not applicable.

DOT Packing Group: Not applicable.

DOT Reportable Quantity (lbs): Not available.

Marine Pollutant: No.

TDG (Canada)

TDG Proper Shipping Name: Not regulated.

Hazard Class: Not applicable.

UN Number: Not applicable.

Packing Group: Not applicable.

Marine Pollutant: No.

15. REGULATORY INFORMATION

U.S. TSCA Inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status:

All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

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WHMIS Hazardous Class: B3 COMBUSTIBLE LIQUIDS,
D1A VERY TOXIC MATERIALS,
D2B TOXIC MATERIALS



U.S. Regulatory Rules:

Ingredients	CERCLA/SARA Section 302:	SARA (311, 312) Hazard Class:	CERCLA/SARA Section 313:
Ethylene Glycol Monobutyl Ether	Not listed	Not listed	Not listed.
Tomadol® 900 Surfactant	Not listed	Not listed	Not listed

CA Proposition 65: Not listed. **NJ Right-to-Know List:** Listed.
MA Right to Know List: Listed. **PA Right to Know List:** Listed.



16. OTHER INFORMATION

Additional Information: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

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*****END OF MSDS*****