



## T475ES, Titan Engine Degreaser



### Section 1: Chemical Product and Company Identification

**Manufacturer or Supplier Name:** Shrader Canada Limited  
**Address:** 830 Progress Court, Oakville, Ontario L6L 6K1  
**Date of MSDS Preparation:** 12/17/2002 **Revision:** 1  
**Product Use:** Cleaner.  
**Chemical Family:** Complex mixture

### Section 2: Composition/Information on Ingredients

Hazardous Ingredients	%	LD50 and LC50	ACGIH TWA	Ecotoxicity - Aquatic Toxicity
STODDARD SOLVENT 8052-41-3	15-40	Not Available	100 ppm TWA	Not Available
PETROLEUM GASES, LIQUEFIED, SWEETENED 68476-86-8	7-13	Not Available	Not available	Not Available
2-BUTOXYETHANOL 111-76-2	7-13	Inhalation LC50 Rat : 450 ppm/4HInhalation LC50 Mouse : 700 ppm/7HOral LD50 Rat : 470 mg/kgOral LD50 Mouse : 1230 mg/kgDermal LD50 Rabbit : 220 mg/kg	skin - potential for cutaneous absorption 20 ppm TWA 20 ppm TWA	LC50 (96 hr) bluegill: 1490 mg/L. Cond: Static, 23 degrees C.; LC50 (24 hr) goldfish: 1650-1700 mg/L.; LC50 (24 hr) water flea: 1720 mg/L.
OLEIC ACID 112-80-1	3-7	Not Available	Not available	Not Available
AMMONIA SOLUTION 1336-21-6	0.1-1.0	Oral LD50 Rat : 350 mg/kg	Not available	LC50 (24 hr) rainbow trout: 0.008 mg/L.; LC50 (96 hr) fathead minnow: 8.2 mg/L.; LC50 (48 hr) bluegill: 0.024-0.093 mg/L. ; EC50 (48 hr) water flea: 0.66 mg/L. Cond: 22 degrees C.

### Section 3: Hazards Identification

**Ingestion:** Ingestion of small amounts during normal handling are not likely to cause injury. Larger amounts may cause effects similar to those described under inhalation. Ingestion of large amounts may cause stomach irritation.

**Skin Contact:** 2-Butoxyethanol may be absorbed through the skin. Frequent or prolonged contact may dry and irritate the skin and cause a rash.

**Inhalation:** High concentrations may cause respiratory irritation and central nervous system depression with results ranging from dizziness and headache to unconsciousness.

**Eye Contact:** Direct contact causes eye irritation. Symptoms will include pain, redness and tearing. Vapours will irritate the eyes.

**Chronic Effects:** Chronic overexposure to 2-Butoxyethanol may cause liver, kidney and blood damage. Reports have associated repeated and prolonged occupational overexposure to various organic solvents with internal organ, brain and nervous system damage.

## Section 4: First Aid Measures

**Ingestion:** Do not induce vomiting. If conscious, immediately drink one half to one glass of water to dilute. Call physician.

**Skin Contact:** Remove contaminated clothing and launder before reuse. Wash with soap and water. Get medical attention if irritation persists.

**Inhalation:** Not a hazard under normal use conditions. If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

**Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

**Additional Information** The main hazard following ingestion is aspiration of the liquid into the lungs during subsequent vomiting. Only if more than 2.0 mL/kg body weight has been ingested, vomiting should be induced with supervision. If symptoms such as convulsions or unconsciousness occur before vomiting, gastric lavage should be considered.

## Section 5: Fire Fighting Measures

<b>Flash Point (°C):</b>	44 SETA CC
<b>Flame Projection:</b>	> 100 cm.
<b>NFPA Classification:</b>	Aerosol, Level 2
<b>Autoignition Temperature (°C):</b>	Not Available
<b>Lower Explosive Limit:</b>	Not Available
<b>Upper Explosive Limit:</b>	Not Available

### Conditions of Flammability:

Flammable when heated to temperatures above the flash point and on contact with an ignition source. Vapours are heavier than air and may travel or be moved along the ground to an ignition source at locations distant from material handling.

### Sensitivity to Mechanical Impact:

Contents under pressure. Protect against physical damage.

### Sensitivity to Static Discharge:

Take precautionary measures against static discharges.

### Extinguishing Media:

Alcohol foam or water fog for large fires. Carbon dioxide or dry chemical for small fires.

Use water spray to cool fire exposed containers and prevent bursting. Do not use a direct stream of water.

**Hazardous Combustion:**

Carbon dioxide, carbon monoxide and other unidentified organic compounds.

## Section 6: Accidental Release Measures

**Leak or Spill Procedures:**

Contain spilled material. Avoid contamination of natural waterways. Wear suitable protective clothing. Follow applicable explosion and fire precautions during the response. Stop the spill at the source when safe to do so. For large spills, dike the area to prevent spreading. Pump excess to a salvage container. Absorb residues and small spills with a non-flammable absorbant material and collect adsorbate for disposal. For large quantities, refer to the environmental ministry.

## Section 7: Handling and Storage

**Handling Procedures:**

Contents under pressure. Flammable. Keep away from heat, spark, flame and other sources of ignition. Containers of this material may contain hazardous residues when emptied. Do not cut, weld, drill or grind on or near this container. Use with adequate ventilation. Avoid breathing vapours. Use good personal hygiene. Avoid smoking, eating and drinking during use. Wash with soap and water after handling.

**Storage Requirements:**

Combustible liquid. Keep away from heat, flame and oxidizers. Store in a cool area, away from all sources of heat, ignition and incompatibles. Storage temperatures should not exceed 40°C. Store at ambient temperatures above 5°C. Keep away from children. Keep containers tightly closed when not in use.

## Section 8: Exposure Controls/Personal Protection

<b>Respiratory:</b>	Not normally required. If the TLV is exceeded, a NIOSH-approved respirator is advised.
<b>Gloves:</b>	Nitrile gloves. Use Viton or 4H gloves.
<b>Eyewear:</b>	Safety glasses. Contact lenses should not be worn. They may contribute to the severity of the injury.
<b>Clothing:</b>	Sufficient clothing to prevent skin contact.
<b>Ventilation:</b>	Sufficient mechanical ventilation to maintain exposures below the TLV. General mechanical ventilation is not recommended as the sole means of controlling exposure. Make-up air should always be supplied to balance air exhausted.
<b>Other protective equipment</b>	Emergency showers and eyewash facilities should be nearby. The selection of personal protective equipment will vary depending on the conditions of use.

## Section 9: Physical and Chemical Properties

<b>Physical State:</b>	Liquid.
<b>Odour:</b>	Ammonia. Hydrocarbon odour.
<b>Appearance:</b>	Clear light yellow.
<b>Odour Threshold:</b>	Not Available
<b>Evaporation Rate:</b>	Not Available
<b>Vapour Pressure (mmHg):</b>	Not available.
<b>Vapour Density (Air=1):</b>	Not Available
<b>VOC %:</b>	Not Available
<b>Boiling Point:</b>	Not Available
<b>pH:</b>	7.7 (Neat)
<b>Coefficient of water:</b>	Not Available
<b>Solubility in Water:</b>	Not Available
<b>Specific Gravity (H2O=1):</b>	0.88 at 15°C
<b>Viscosity:</b>	Not available.

## Section 10: Stability and Reactivity

### Conditions of Instability:

Stable at ambient and moderately elevated temperatures and pressures.

### Hazardous Polymerization:

Hazardous polymerization will not occur.

### Hazardous Decomposition:

See hazardous combustion products.

### Incompatible Materials:

Avoid strong oxidizers such as HOOH, HNO<sub>3</sub>, and oleum.

### Conditions of Reactivity:

Avoid excessive heat, sparks and open flame.

## Section 11: Toxicological Information

### Irritancy of Product:

Moderately irritating to eyes and skin.

### Sensitization to product:

In rare cases, may sensitize the heart muscles causing heart arrhythmia.

### Carcinogenicity:

No components are listed as carcinogens by ACGIH, IARC, OSHA, or NTP.

### Reproductive Effects:

2-Butoxyethanol is an experimental reproductive toxin.

### Teratogenicity:

2-Butoxyethanol is an experimental teratogen. In laboratory animal teratology studies on 2-Butoxyethanol, no embryotoxicity or lethality was observed without maternal effects (concentrations 100-300 ppm). These studies do not establish a risk of birth defects in humans.

### Mutagenicity:

The results of in-vitro mutagenicity tests have been inconclusive. In-vitro mutagenicity tests for 2-Butoxyethanol have been negative.

**Synergistic Products:**

Not Available

## Section 12: Ecological Information

**Environmental:** Toxic to aquatic life. Aromatic hydrocarbons may be bioaccumulative but they have no food chain concentration potential. See composition/information on ingredients.

**Biodegradability:** Not available.

## Section 13: Disposal Considerations

**Waste Disposal:** Contents under pressure. Do not puncture, incinerate or expose to heat even when empty. Reuse or recycling should be given priority over disposal under any circumstances. Do not dump unused contents into sewers, on the ground or into any body of water. Dispose of in accordance with municipal, provincial and federal regulations.

## Section 14: Transportation Information

**Road shipment:** AEROSOLS, Class 2.1, UN1950, ERG #126.

**Marine shipment:** AEROSOLS, Class 2, UN1950, EmS# F-E, S-U.  
**Flash Point (°C):** 44 SETA CC

**Air Shipment:** Aerosols, Flammable, N.O.S., Class 2.1, UN1950, PI 203.

**Exemption:** LTD QTY exemptions may be used if product is packaged in accordance with Schedule 1 of TDGR (Clear Language)

## Section 15: Regulatory Information

**WHMIS:** A, B5, D1A

**CEPA:** All components are listed on the Domestic Substances List (DSL).

**CPR Compliance:** This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

## Section 16: Other Information

**HMIS Rating:** 220B

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