



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: 06/26/2002 **Revision:** 1
Product Use: Fuel injector cleaner.
Chemical Family: Complex mixture Blend of petroleum-based solvents and detergents.

Section 2: Composition/Information on Ingredients

Hazardous Ingredients	%	LD50 and LC50	ACGIH TWA	Ecotoxicity - Aquatic Toxicity
OLEIC ACID 112-80-1	1-5	Not Available	Not available	Not Available
METHYLISOBUTYL CARBINOL 108-11-2	1-5	Oral LD50 Rat : 2590 mg/kg Dermal LD50 Rabbit : 3560 uL/kg	= 25 ppm TWA = 40 ppm STEL skin - potential for cutaneous absorption	LC50 (24 hr) goldfish: 360 mg/L.; LC50 (96 hr) water flea: 143.17 mg/L. Cond: QSAR calculated.
2-BUTOXYETHANOL 111-76-2	1-5	Inhalation LC50 Rat : 450 ppm/4H Inhalation LC50 Mouse : 700 ppm/7H Oral LD50 Rat : 470 mg/kg Oral LD50 Mouse : 1230 mg/kg Dermal LD50 Rabbit : 220 mg/kg	= 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.
NITROGEN 7727-37-9	0.5-1.5	Not Available	Not available	Not Available
AMMONIA SOLUTION 1336-21-6	0.5-1.5	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: Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal. Ingestion of large amounts may cause stomach irritation. Ingestion of small amounts during normal handling are not likely to cause injury. Larger amounts may cause effects similar to those described under inhalation. Symptoms include nausea, vomiting and diarrhea.

Skin Contact: 2-Butoxyethanol may be absorbed through the skin. Frequent or prolonged

contact may dry and irritate the skin and cause a rash. Methyl Isobutyl Carbinol may be absorbed through the skin. No hazard under normal conditions of use.

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.

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: Wash with soap and water. Remove contaminated clothing and launder before reuse. Seek 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: Immediately flush eyes with large amounts of water for at least 15 minutes, lifting upper and lower lids. Remove contact lenses if any after the initial flushing and then continue flushing. Get immediate medical attention.

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

Flash Point (°C): 9 TCC (Liquid Component)

Flame Projection: Not Applicable.

NFPA Classification: Aerosol, Level 3

Lower Explosive Limit: Not Available

Upper Explosive Limit: Not Available

Autoignition Temperature (°C): Not Available

Sensitivity to Mechanical Impact:

Contents under pressure. Protect against physical damage.

Conditions of Flammability:

Extremely flammable. Do not use on vehicles unless cool. Sprayed product will project a flame on contact with an ignition source. Contents under pressure. Containers may explode is heated. 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 Static Discharge:

Take precautionary measures against static discharges.

Hazardous Combustion:

Oxides of carbon, sulfur, nitrogen, phosphorous and other unidentified organic compounds.

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.

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 absorbent material and collect adsorbate for disposal. For large quantities refer to the environmental ministry.

Section 7: Handling and Storage

Handling Procedures:

Flammable. Keep away from heat, spark, flame and other sources of ignition. Do not use on hot vehicles. Use with adequate ventilation. Avoid breathing vapours. Avoid skin and eye contact. Wear all appropriate personal protective equipment during use. Use good personal hygiene. Avoid smoking, eating and drinking during use. Wash with soap and water after handling.

Storage Requirements:

Store in a cool, dry, well-ventilated area. Storage temperatures should not exceed 40°C. Keep from freezing. Keep away from children.

Section 8: Exposure Controls/Personal Protection

Respiratory:	Not normally required. If the TLV is exceeded, a NIOSH-approved respirator is advised.
Gloves:	Nitrile gloves. Neoprene.
Eyewear:	Safety glasses. Contact lenses should not be worn. They may contribute to the severity of the injury.
Clothing:	Sufficient clothing to prevent skin contact.
Ventilation:	Sufficient mechanical ventilation to maintain exposures below the TLV. Under normal conditions of use, general ventilation should be satisfactory. Local ventilation is recommended if the product is misted or used in a confined space or if the TLV is exceeded. Make up air should always be supplied to balance air exhausted.
Other protective equipment	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

Physical State:	Aerosol
Odour:	Aromatic odour.
Appearance:	Yellow.
Odour Threshold:	Not Available
Evaporation Rate:	Not Available
Vapour Pressure (mmHg):	Not available.
Vapour Density (Air=1):	> 1
VOC %:	78
Boiling Point:	Not Available
pH:	9.0 to 10.0 (Neat)
Coefficient of water:	Not Available
Solubility in Water:	Partial
Specific Gravity (H2O=1):	0.78 to 0.84 at 15°C
Viscosity:	Not available.

Section 10: Stability and Reactivity

Conditions of Instability:

Stable at ambient temperatures and pressures.

Hazardous Polymerization:

Hazardous polymerization will not occur.

Hazardous Decomposition:

See hazardous combustion products.

Incompatible Materials:

Avoid strong oxidizers such as HOOH, HNO₃, and oleum. Light.

Conditions of Reactivity:

Avoid excessive heat, sparks and open flame.

Section 11: Toxicological Information

Irritancy of Product:

Not Available.

Sensitization to product:

Contains no known skin or respiratory sensitizers.

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.
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): 9 TCC (Liquid Component)

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, D2B

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: 241B

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