T350CI, Titan Heavy Duty Diesel Cetane Improver

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: 03/21/2002 **Revision:** 0
Product Use: Cetane improver.
Chemical Family: Petroleum distillates.

Section 2: Composition/Information on Ingredients

Hazardous Ingredients	%	LD50 and LC50	ACGIH TWA	Ecotoxicity - Aquatic Toxicity
1,2,4-TRIMETHYLBENZENE 95-63-6	0.1-1.0	Inhalation LC50 Rat : 18 gm/m3/4HOral LD50 Rat : 5 gm/kg	Not available	LC50 (96 hr) fathead minnow: 77.2 mg/L. Cond: Flow-through, 25 degrees C, pH 7.24, 44.9 mg/L CaCO3.

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: Frequent or prolonged contact may dry and irritate the skin and cause a rash. 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. Vapours will irritate the eyes. Symptoms will include pain, redness and tearing.

Chronic Effects: 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. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

Skin Contact: Remove contaminated clothing and launder before reuse. Wash with soap and water. 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 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

Flash Point (ºC):	78 ºC
Flame Projection:	Not Applicable.
NFPA Classification:	Combustible Liquid, Level IIIA
Autoignition Temperature (ºC):	Not Available
Lower Explosive Limit:	Not Available
Upper Explosive Limit:	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:
Not Available

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:
Wear suitable protective clothing. Follow applicable explosition 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. Contain spilled material. Avoid contamination of natural waterways.

Section 7: Handling and Storage

Handling Procedures:
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. Keep containers tightly closed when not in use.

Section 8: Exposure Controls/Personal Protection

Respiratory:	Not normally required. If the TLV is exceeded, a NIOSH-approved respirator is advised.
Gloves:	Neoprene. Nitrile.
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. General mechanical ventilation is not recommended as the sole means of controlling exposure. 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:	Liquid.
Odour:	Mild odour.
Appearance:	Clear amber liquid.
Odour Threshold:	Not Available
Evaporation Rate:	Not Available
Vapour Density (Air=1):	Not Available
Boiling Point:	Not Available
pH:	Not available.
Solubility in Water:	Negligible
Specific Gravity (H_2O=1):	0.95
Viscosity:	< 14cSt @ 40°C

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, HNO3, and oleum.

Conditions of Reactivity:
Avoid excessive heat, sparks and open flame. Avoid contact with incompatible materials.

Section 11: Toxicological Information

Irritancy of Product:
May be mildly irritating to eyes and skin.

Sensitization to product:
Contains no known skin or respiratory sensitizers.

Carcinogenicity:
Petroleum dervived oils may contain Polyaromatic Hydrocarbons (PAH) contaminants. Solvent refining and hydrotreating oil removes PAH´s virtually eliminating the risk of cancer normally associated with PAH´s and oils.

Reproductive Effects:
Not Available

Teratogenicity:
Negative.

Mutagenicity:
Not Available None known.

Synergystic Products:
None known.

Other Information:
No toxilogical information is available for this product.

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: Biodegradable.

Section 13: Disposal Considerations

Waste Disposal: Reuse or recycling should be given priority over disposal under any circumstances. Destroy by incineration or biological treatment in accordance to applicable legislation.

Section 14: Transportation Information

Road shipment: Not regulated by TDGR.

Marine shipment: Not regulated by IMDG.
Flash Point (ºC): 78 ºC

Air Shipment: Petroleum products, N.O.S., Class 3, UN 1268, Packing Group III, PI 309. Not regulated by IATA, ICAO

Exemption: None required.

Section 15: Regulatory Information

WHMIS: B3, 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: 110B
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