

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Product name: PENETRANT PLUS LUBE SHIELD AEROSOL **Supplier name & address:**
Chemical formula: Complex mixture Comlube Technology Inc.
Product family: Complex lubricant 110 Scotia Court #34
Product use: Lubricant Whitby, Ontario, L1N 8Y7
Telephone #: (905) 438-8418

SECTION II - HAZARDOUS INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>% (by weight)</u>	<u>LC₅₀, ppm (Rat, ihl.)</u>	<u>LD₅₀, mg/kg (Rat, oral)</u>
Alkanes, chemically modified	68410-99-1	15-40	Not established	7 g/kg (rabbit)
1,1,1,2-Tetrafluoroethane	811-97-2	10-30	>500,000 ppm/4 Hours	N/Av

SECTION III - PHYSICAL DATA

Physical state, odour and appearance: Clear, pale yellow liquid concentrate, in aerosol form. Slight hydrocarbon odour.
Odour threshold: Not available **Specific gravity:** 0.870 . 0.900 at 20 °C
Coefficient of water/oil distribution: Not available **Vapour pressure (mm Hg):** 15 mm Hg at 20°C
Boiling point: 280°C (lowest known) **Freezing point:** Not available
pH: Not applicable **Vapour density (Air=1.0):** Approximately 1.0
Evaporation rate (n-BuAc=1.0): Same as water **Solubility in water (w/w):** Insoluble
Volatiles, % by weight: Not available **Volatiles, % by volume:** Not available

SECTION IV - FIRE AND EXPLOSION DATA

Conditions of flammability: Not flammable under normal conditions, as per flame-extension test under Hazardous Products Act. Flame extension is 0 cm. Canadian National Fire Code, Level 3. Contents under pressure . containers may explode if heated.
If yes, under which conditions: May be ignited if heated to extremely high temperatures, such as in a building fire.
Means of extinction: *Small fire* – use dry chemical, CO₂, water spray or foam; *large fire* – use water spray, fog or foam. Cool vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Self-contained respiratory protection should be used.
Sensitivity to mechanical impact/static discharge: Not sensitive to static discharge or impact under normal handling conditions
Flash point (Method): Lowest known, 125 °C (Cleveland Open Cup) for complex aromatic/aliphatic mixture.
Upper flammable limits (% by volume): Not applicable **Lower flammable limits (% by volume):** Not applicable
Auto-ignition temperature: Lowest known value is 235 °C for complex aromatic/aliphatic mixture.
Hazardous combustion products: Combustion may produce oxides of carbon, smoke and hydrogen chloride.

SECTION V - REACTIVITY DATA

Stability: Stable. Hazardous polymerization will not occur.
Incompatible materials: Strong oxidizers, strong reducers and strong acids.
Conditions of reactivity: Excessive heat, sparks, open flame and ignition sources.
Hazardous decomposition products: Thermal decomposition may produce oxides of carbon, smoke and hydrogen chloride.

SECTION VI - TOXICOLOGICAL PROPERTIES

LD₅₀ of material: See Section 2

LC₅₀ of material: See Section 2

Routes of entry:

Skin contact: Prolonged contact may cause irritation.

Eye contact: May cause mild irritation.

Inhalation: No likely exposure at room temperature as there are no vapours. Respiratory irritation may occur if spray mist is directly inhaled.

Ingestion: No significant hazard. Ingestion of large amounts may cause intestinal discomfort and diarrhea.

Exposure limits: ACGIH TLV-TWA: Not established.

Acute effects: See under %Routes of entry+ Adverse effects are not expected under normal handling conditions.

Chronic effects: Prolonged or repeated skin contact may cause dermatitis.

Carcinogenicity: No component is listed as carcinogenic by the International Agency for Research on Cancer (IARC) or the American Conference of Government Industrial Hygienists (ACGIH).

Teratogenicity, mutagenicity, other reproductive effects: None known.

Sensitization to material: Not known to be a sensitizer.

Synergistic materials: None known.

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SECTION VII - FIRST AID

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Inhalation: Vapour pressure is very low, so unlikely to cause harm unless mist is directly inhaled. If overexposed, remove affected person to fresh air. If they still feel unwell, get medical attention.

Skin: Wash affected area with soap and water. Remove contaminated clothing. If irritation persists, get medical attention.

Eyes: Immediately flush eyes with large quantities of lukewarm, gently-flowing water for at least 15 minutes, while holding eyelids open. Get medical attention if irritation does not go away immediately.

Ingestion: If swallowed, DO NOT induce vomiting. If vomiting occurs naturally, lean victim forward to prevent aspiration of material. Get immediate medical attention.

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SECTION VIII - PREVENTIVE MEASURES

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Spill, leak or release: Remove sources of ignition. Keep away from heat, and provide adequate ventilation. Stop the flow, if safe to do so, and absorb any free liquid with absorbent. Collect waste and absorbent in steel contains, that can be closed and sealed. Wear safety glasses and impervious gloves for cleaning up spills.

Waste disposal: Recycle to process, if possible. Do not dispose in sewers. When container is empty, press button to release all pressure, then dispose of waste in accordance with all local, provincial and federal regulations.

Protective equipment:

Respiratory/type: No respiratory protection required for normal conditions of use. If large amounts of spray mist are generated, wear a NIOSH-approved vapour respirator.

Gloves/type: Wear impervious gloves, such as Neoprene.

Eye/type: Wear chemical safety glasses, preferably with side shields.

Footwear/type: Wear safety boots as per health and safety regulations

Other/type: Emergency shower and eye wash station should be close to work area.

Engineering controls: No special controls are needed for normal conditions of use.

Handling procedures and equipment: Keep away from all ignition sources. Do not smoke, eat or drink while handling. Avoid breathing vapour or spray mists. Avoid contact with skin and eyes. After handling, always wash hands thoroughly with soap and water. Contents under pressure . container may explode if heated. Do not puncture or incinerate can. Keep out of reach of children. Do not place in hot water or near radiators, stoves or other sources of heat.

Storage requirements: Store at room temperature . do not exceed 50 °C. Do not store near heat or open flame. Do not leave in direct sunlight. Keep from freezing.

Special shipping instructions: TDG: AEROSOLS, Class 2.2, UN1950. May be shipped as CONSUMER COMMODITY.

Other information: All ingredients of this product are included on the Domestic Substances List under the Canadian Environmental Protection Act.

WHMIS classification: A, D2B

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SECTION IX - PREPARATION INFORMATION

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Prepared by: Comlube Technology Inc.

Telephone #: (905) 438-8418

Preparation date: December , 2009

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