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**MATERIAL SAFETY DATA SHEET**

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I. GENERAL INFORMATION

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DATE: August 1, 2002  
SUPERCEDES: June 15, 1998  
MON-ECO CODE: **44-60/62**  
TRADE NAME & SYNONYMS: **Eco-Duct Seal N.F.**  
CHEMICAL FAMILY: Solvent Based Adhesive  
PROPER DOT SHIPPING NAME: Toxic Liquid, Organic, N.O.S., 6.1, PG III.  
DOT HAZARD CLASSIFICATION: UN 2810  
FOR EMERGENCY CONTACT CHEM-TEL, INC. 1-800-255-3924

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II. INGREDIENTS

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PRINCIPAL HAZARDOUS COMPONENTS CAS# THRESHOLD LIMIT VALUE  
Trichloroethylene 56% by wt. 79-01-6 50 ppm 50 ppm  
This chemical is subject to the reporting requirements of Section 313 of SARA Title III. OSHA, IARC or NTP does not class the ingredients in this product as carcinogens. All ingredients in this product are on the TSCA Inventory.  
HAZARD RATING: Health-2, Fire-1, Reactivity-0

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III. PHYSICAL DATA

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BOILING POINT: 189°F  
SPECIFIC GRAVITY (WATER=1): 1.42  
VAPOR PRESSURE (mmHg.): 60  
PERCENT VOLATILE: 56% by weight  
VAPOR DENSITY (AIR=1): 4.5  
EVAPORATION RATE (Ether =1): 3.1  
SOLUBILITY IN WATER: Not soluble.  
APPEARANCE & ODOR: Soft Paste, ether like odor.  
VOLATILE ORGANIC CONTENT: 6.65 lbs/gal  
796 grams/liter

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IV. FIRE & EXPLOSION HAZARD DATA

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FLASH POINT (TEST METHOD): Not Applicable  
EXPLOSIVE LIMIT (PRODUCT) Lower-8.0% Upper-10.5%  
EXTINGUISHING MEDIA: Regular foam or water fog or carbon dioxide or dry chemical.  
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**44-60 / 44-62 MSDS**

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**IV. FIRE & EXPLOSION HAZARD DATA**

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**HAZARDOUS DECOMPOSITION OF PRODUCTS:** Carbon Dioxide and Carbon Monoxide, Hydrogen Chloride, Phosgene, Chlorine, various Hydrocarbons.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.

**UNUSUAL FIRE & EXPLOSION HAZARDS:** Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Vapors concentrated in a confined/poorly ventilated area can be ignited upon contact with a high-energy spark, flame or high intensity source of heat.

Vapors are heavier than air and will collect in low areas.

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**V. HEALTH HAZARD DATA**

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Permissible Exposure Level: 50 ppm.

Threshold Limit Value: 50 ppm.

Effects of Acute Overexposure:

**Eyes:** Exposure causes eye irritation. Symptoms may include stinging, tearing, redness and swelling.

**Skin:** Exposure causes eye irritation. Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, drying and cracking, skin burns and skin damage. Pre-existing skin disorders may be aggravated by exposure to this material.

Additional Symptoms of Skin Contact May Include:

Numbness of the fingers when they are immersed in this material.

Skin Absorption is possible, but harmful effects are not expected from this route of exposure under normal conditions of handling and use.

**Breathing:** Exposure to vapor mist is possible.

Short Term Inhalation toxicity is low. Breathing small amounts during normal handling is not likely to cause harmful effects: Breathing large amounts may be harmful.

Symptoms are more typically seen at air concentrations exceeding the recommended exposure limits.

Symptoms of exposure may include: Irritation (nose, throat, respiratory tract) pre-existing lung disorders, e.g. Asthma-like conditions, may be aggravated by exposure to this material.

Cough-

central nervous system depression (dizziness, weakness, fatigue, nausea, headache, unconsciousness).

Impaired Coordination-

(Continued)

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Irregular heartbeat - individuals with pre-existing heart disorders may be more susceptible to arrhythmia's (irregular heartbeats) if exposed to high concentrations of this material.

Alcohol consumed before or after exposure may worsen harmful effects.

Swallowing: single dose oral toxicity is low. Swallowing small amounts during handling is not likely to cause harmful effects; swallowing large amounts may be harmful. Symptoms may include: Gastrointestinal irritation (nausea, vomiting, diarrhea) Central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness)

Muscle weakness: Irregular heartbeat - individuals with pre-existing heart disorders may be more susceptible to Arrhythmia's (irregular heartbeats) if exposed to high concentrations of this material. This material can enter the lungs during swallowing or vomiting and can cause lung inflammation and/or damage.

**FIRST AID:**

If on skin: remove contaminated clothing, flush exposed area with large amounts of water. If skin is damaged. Seek medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

If in eyes: If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart: seek medical attention.

If swallowed: do not induce vomiting. This material is an aspiration hazard. If individual is drowsy or unconscious, place on left side with head down. Seek medical attention. If possible, do not leave individual unattended.

If breathed: if symptoms develop, move individual away from exposure and into fresh air. If symptoms persist. seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

**Note To Physician:**

Inhalation of high concentrations of this material, as could occur in exposed spaces or during deliberate abuse, may be associated with cardiac arrhythmia's. Sympathomimetic drugs may initiate cardiac arrhythmia's in persons exposed to this material.

**Primary Route (s) of entry:**

Inhalation, skin absorption, skin contact, eye contact.

**Effects of chronic overexposure:**

Some studies of Trichloroethylene in laboratory animals have produced cancer, while others have not. The relevance of these findings to humans is uncertain.

There is no evidence that Trichloroethylene causes cancer in humans.

IARC, NTP or OSHA does not list this material as a carcinogen.

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Brief or prolonged exposure to Trichloroethylene and its decomposition products (e.g. Dichloroacetylene) has been associated with cranial neuropathy (characterized by facial numbness). Although it isn't clear which agent is responsible for the effect.

Studies in Trichloroethylene-exposed workers indicate that overexposure to this chemical may result in involuntary eye movement, tremors, sleep disturbances, symptoms of central nervous system (CNS) depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), and other CNS effects.

Persons exposed to Trichloroethylene may become intolerant to alcohol with small quantities causing drunkenness and skin blotches.

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Overexposure to this material (or its components) have been suggested as a cause of the following effects in laboratory animals and may aggravate pre-existing disorders of these organs in humans: mild, reversible liver effects, effects on hearing, kidney damage.

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**VI. REACTIVITY DATA**


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STABILITY: Stable

CONDITIONS TO AVOID:

INCOMPATIBILITY: Open flame, welding arcs, resistance heaters, etc. Which can result in thermal decomposition releasing hydrogen chloride and small amounts of phosgene and chlorine. Avoid contact with, strong oxidizing agents, strong alkalis, reactive metals such as aluminum and magnesium.

MATERIALS TO AVOID:

HAZARDOUS POLYMERIZATION: Cannot Occur

CONDITIONS TO AVOID:

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**VII. ENVIRONMENTAL PROTECTION PROCEDURES**


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SPILL RESPONSE: Steps to be taken in case material is released or spilled:

Small Spill: Absorb liquid or vermiculite, floor absorbent or other absorbent material.

Large Spill: Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water, prevent from spreading. If runoff occurs notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

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**VII. ENVIRONMENTAL PROTECTION PROCEDURES**

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Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

WASTE DISPOSAL METHOD: Small Spill: Dispose of in accordance with all local, state and federal regulations.

Large Spill: Dispose of in accordance with all Local, State and Federal regulations.

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**VIII. SPECIAL PROTECTION PROCEDURES**

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EYE PROTECTION: Chemical splash goggles in compliance with OSHA regulations are advised; however OSHA regulations also permit other type safety glasses. Consult your safety representative.

SKIN PROTECTION: Wear resistant gloves (Consult your safety equipment supplier)

RESPIRATORY PROTECTION (SPECIFIC TYPE): if workplace exposure limits(s) of product or any component is exceeded (see section II), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

VENTILATION RECOMMENDED: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s)

OTHER PROTECTIVE EQUIPMENT: To prevent repeated or prolonged skin contact.

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**IX. SPECIAL PRECAUTIONS**

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**HYGIENIC PRACTICES IN HANDLING & STORAGE:**

Containers of this material may be hazardous when emptied. since emptied containers retain product residues (vapor, liquid, and/or solid). All hazard precautions given in this data sheet must be observed.

Aluminum equipment should not be used for storage and/or transfer, e.g. pumps, mixers, fittings, storage tanks, etc. contact with aluminum parts in a pressurizable fluid system may cause violent reactions.

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**X. SUPPLEMENTAL INFORMATION**

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**WARNING-**This product contains chemicals known to the State of California to cause cancer.

*While Mon-Eco Industries, Inc. believes that the data here is factual. The data is not to be considered a warranty or representation for which Mon-Eco Industries, Inc. assumes legal responsibility. The data is offered solely for your consideration, investigation and verification. The user must determine if any use of this information is in accordance with applicable federal, state and local regulations.*