

MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet complies with the Canadian Controlled Product Regulations

1. Product and Supplier Identification

Product: Metal Treatment – Crankcase Engine - Product # 111102 - 168400

Product Use: Metal Anti-Wear Mixture

Manufacturer: Enviro-Save Products, Inc.
P.O. Box 80129
Burnaby, British Columbia
Canada, V5H 3X5
(604) 522-8836

Supplier: As above

2. Composition

Component	% (w/w)	Exposure Limits
Stoddard Solvent (CAS 8052-41-3)	67-73	ACGIH TLV-TWA: 100ppm; OSHA TLV-TWA: 100 ppm

3. Hazards Identification

Routes of Entry:

Skin Contact: Minor Eye Contact: Moderate Ingestion: Minor Inhalation: Minor

Effects of Short-Term (Acute) Exposure:

Inhalation: Under normal conditions of use, there are no expected health effects due to inhalation. Vapours or mist can cause irritation and central nervous system effects such as headache, dizziness, and fatigue.

Skin Contact: Stoddard solvent has caused mild to moderate skin irritation.

Eye Contact: Vapour, mist and liquid can cause irritation. Irritation is temporary.

Ingestion: Oral toxicity is extremely low. If the product is aspirated into the lungs during accidental ingestion, the damage to lungs may be fatal.

Effects of Long-Term (Chronic) Exposure: Repeated or prolonged exposure with the skin can cause dermatitis, dry skin, or cracking. There is inadequate evidence that this product will cause target organ effects.

Medical Conditions Aggravated By Exposure: Persons predisposed to skin problems may experience aggravated skin conditions resulting in severe rashes.

4. First Aid Measures

Eye Contact: Remove contact lenses if worn. In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower eyelids occasionally. Obtain medical attention.

Skin Contact: In case of contact, remove contaminated clothing. In a shower, wash affected areas with soap and water for at least 15 minutes. Seek medical attention if irritation occurs or persists. Wash clothing before reuse.

Inhalation: Remove to fresh air, restore or assist breathing if necessary. Obtain medical attention.

Ingestion: Although swallowing will not cause any severe health effect, the chance of aspiration must be minimized. Do not induce vomiting. Do not give anything by mouth. If victim is drowsy or unconscious, place on left side with head down. If possible, do not leave victim unattended. Seek medical attention immediately.

5. Fire Fighting Measures

Flash point:	>63°C (TCC)
Autoignition temperature:	>440 °C
Lower Explosive Limit:	1.0%
Upper Explosion Limit:	7.0%
Sensitivity to Impact:	No

Sensitivity to Static Discharge: No

Hazardous Combustion Products: Oxides of carbon, and unidentified hydrocarbons in smoke.

Extinguishing Media: Dry chemical, carbon dioxide, foam or water spray is recommended. Use caution when applying carbon dioxide in confined spaces.

Fire Fighting Instructions: Emergency responders in the danger area should wear full protective gear, including self-contained breathing apparatus. Vapours are heavier than air, and may collect in low-lying areas. Mixtures of vapour and oxygen may be explosive.

Isolate danger area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from danger if it can be done with minimal risk. Water spray may be useful in minimizing or dispersing vapours and cooling uninvolved containers.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD INDEX:

HEALTH: 1

FLAMMABILITY: 2

REACTIVITY: 0

SPECIFIC HAZARD: Combustible

6. Accidental Release Measures

Overview: Combustible liquid. Keep all sources of ignition away from spill/release area. The use of explosion proof equipment is recommended. Stay upwind and away from spill area. Restrict access to area until completion of cleanup. Ensure cleanup is conducted by trained personnel only. Wear adequate personal protection. Notify all governmental agencies as required by law.

Personal Protection: Wear appropriate protective equipment including respiratory protection as conditions warrant.

Environmental Precautions: Prevent the spilled material from entering sewers, storm drains, and natural waterways. Dike spill area to assist in containment of spill.

Remedial Measures: Spilled material may be absorbed into an appropriate oleophilic material. Place contaminated absorbent into approved containers for disposal. Notify appropriate government authorities.

7. Handling and Storage

Handling Procedures: No smoking or open flame in storage, use or handling areas. Use explosion proof electrical equipment. Ensure proper electrical grounding procedures are in place.

Empty containers retain residues, which are dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose these containers to any source of heat. Failure to abide by these rules could cause an explosion resulting in severe injury, or even death.

Storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Post "No Smoking" signs in immediate area. Keep away from incompatible materials such as strong oxidizing and reducing materials.

8. Exposure Controls, Personal Protection

Engineering Controls: In confined areas, local and general ventilation should be provided to maintain airborne concentrations below permissible exposure limits. Ventilation systems must be designed according to approved engineering standards.

Respiratory Protection: NIOSH approved supplied air purifying respirator with an organic vapour cartridge may be used under conditions where airborne concentrations are expected to exceed exposure limits. Use a positive pressure air supplied respirator if there is a potential for an uncontrolled release, or exposure levels are unknown.

Skin protection: Butyl and nitrile rubbers are recommended for gloves.

Eye and Face Protection: Face shield and chemical splash goggles when transferring is taking place.

Footwear: Chemical resistant, and as specified by the workplace.

Other: Eyewash and showers should be located near work areas.

9. Physical and Chemical Properties

Appearance: Liquid, clear, light amber

Odour: Hydrocarbon odour

Odour Threshold: Not available

pH: Not applicable

Vapour Pressure: Negligible

Solubility: Negligible

Vapour Density: 5.1 (air=1)

Freezing Point: No data

Boiling Point: 188 – 208°C

Critical Temperature: Not applicable

Relative Density: 0.83

Evaporation Rate: 0.08 (n-butyl acetate=1)

Partition Coefficient: Not available

10. Stability and Reactivity

Chemical Stability: Yes

Incompatibility: Yes. Avoid contact with strong oxidizers or reducers.

Hazardous Decomposition Products: Oxides of carbon

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Acute Exposure: See Section 3

Chronic Exposure: See Section 3.

Exposure Limits: See Section 2.

Irritancy: See Section 3.

Sensitization: No

Carcinogenicity: No

Teratogenicity: No

Reproductive toxicity: No

Mutagenicity: No

Synergistic products: None Known

12. Ecological Information

Environmental toxicity: No data

Biodegradability: Biodegrades slowly in water.

13. Disposal Considerations

Review federal, provincial or state, and local government requirements prior to disposal. Store material for disposal as indicated in Storage Conditions. Disposal by controlled incineration or by secure land fill may be acceptable.

14. Transport Information

Transport of Dangerous Goods (TDG and CLR): Not regulated

United States Department of Transport (49CFR): Petroleum Distillates, n.o.s. (Naphtha), Class 3, UN 1268, P.G. III

International Air Transport Association (IATA): Not regulated

International Maritime Organization (IMO): Environmentally Hazardous Substance, Liquid, n.o.s. (Stoddard Solvent), Class 9, UN 3082, P.G. III

15. Regulatory Information

CANADIAN FEDERAL REGULATIONS:

CEPA, DOMESTIC SUBSTANCES LIST: Listed

WHMIS CLASSIFICATION: B3, D2B

16. Other Information

Preparation Date: March 19, 2002

Prepared by: Kel-Ex Agencies Ltd., 1326 Main Street, North Vancouver, B.C., V7J 1C3

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Revisions: None