MATERIAL SAFETY DATA SHEET

Product name: Heavy Duty Diesel Engine Coolant Concentrate (Green)

1. COMPANY DETAILS AND PRODUCT IDENTIFICATION

COMPANY: Hi-Tec Oil Traders Pty Ltd. (ABN 28 053 837 362)
ADDRESS: PO Box 322 Castle Hill NSW 1765
5 Tarlington Place, Smithfield NSW 2164
TELEPHONE NUMBER: 1300 796 009
FAX NUMBER: (02) 9604 1611
EMERGENCY TELEPHONE NUMBER: 1300 796 009
PRODUCT NAME: Heavy Duty Diesel Engine Coolant Concentrate (Green)
OTHER NAMES: None
MANUFACTURER’S PRODUCT CODE: HI8-3205-

USE: Glycol based engine coolant/antifreeze

ADDITIONAL INFORMATION: Refer to Product Information Sheet for additional information.

OTHER INFORMATION: Visit our website: www.hi-tecoils.com.au
Email: hitecoils@hi-tecoils.com.au

2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: HAZARDOUS SUBSTANCE
NON-DANGEROUS GOODS
Hazard classification according to criteria of NOHSC,
Dangerous goods classification according to Australian Dangerous Goods Code.

RISK PHRASE (S):
Xn - Harmful
R 22 – Harmful if swallowed
S2 – Keep out of reach of children

IRRITANCY OF PRODUCT: Not classified as an irritant.
SENSITISATION OF PRODUCT: Not known to be a sensitiser.
TERATOGENICITY: No teratogenic effects known.

OTHER INFORMATION: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and environment on disposal. All used oils should be handled with caution and skin contact avoided as far as possible.
3. IDENTIFICATION / COMPOSITION OF INGREDIENTS

CHEMICAL CHARACTERISTICS: Liquid

INGREDIENTS:

<table>
<thead>
<tr>
<th>CHEMICAL ENTITY</th>
<th>CAS No.</th>
<th>PROPORTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene Glycol</td>
<td>107-21-1</td>
<td>90 - 98%</td>
</tr>
<tr>
<td>Other non hazardous ingredients</td>
<td></td>
<td>To 100%</td>
</tr>
</tbody>
</table>

OTHER INFORMATION:

4. FIRST AID MEASURES

HEALTH EFFECTS

SWALLOWED: If a quantity is ingested SEEK IMMEDIATE MEDICAL ATTENTION. Give water or milk to drink. DO NOT induce vomiting. If vomiting occurs get immediate medical attention due to aspiration into lungs risk.

EYE: Immediately irrigate with copious amounts of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical advice. If irritation occurs, seek medical advice.

SKIN: Remove contaminated clothing and wash skin thoroughly with plenty of soap and water. If irritation occurs, seek medical advice. High pressure injection through the skin requires URGENT medical attention for possible incision, irrigation and/or debridement. Contact with molten material will require treatment by a physician for burns (Do not remove material).

INHALED: Remove victim from exposure to fresh air – avoid becoming a casualty. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through face mask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage and seek urgent medical aid.

FIRST AID FACILITIES: Normal washroom facilities are generally suitable. Ensure an eye wash station and safety shower is available and ready for use.

ADVICE TO DOCTOR: Treat symptomatically.

OTHER INFORMATION: Keep water and mild soap near work site.
5. FIRE FIGHTING MEASURES

FIRE/EXPLOSION HAZARD

HAZARDS OF USE/STORAGE: Product is not a combustible liquid according to AS 1940.

HAZARDS FROM COMBUSTION PRODUCTS: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. Fire decomposition products: carbon dioxide, carbon monoxide, acrid smoke, irritating fumes.

FIRE-FIGHTING RECOMMENDATIONS: Not Combustible. Use extinguishing media suited to burning materials. Do not use water jet.

SUITABLE EXTINGUISHING MEDIA: Use water, foam, carbon dioxide or dry chemical.

PROTECTIVE MEASURES: We suggest that protective clothing be made from the following materials: rubber, PVC.

REACTIVITY: This product will not undergo polymerisation reactions.

6. ACCIDENTAL RELEASE MEASURES

SPILLS & DISPOSAL: Slippery when spilt. Avoid accidents, clean up immediately.

CLEAN-UP PROCEDURE - SMALL SPILLS (20L or less): Minor spills do not normally need any special cleanup measures

CLEAN-UP PROCEDURES - LARGE SPILLS (Greater than 20L): In the event of a major spill, prevent spillage from entering drains or water courses.

PERSONAL PRECAUTIONS: As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8).

OTHER INFORMATION: PROCEDURES IN CASES OF LEAKAGE OR BREAKAGE: Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Can be slippery on floors, especially when wet. Recycle containers wherever possible after careful cleaning.
6. ACCIDENTAL RELEASE MEASURES (CONT)

After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

SAFE STORAGE CONDITIONS: Keep containers closed at all times. Store in a cool place out of direct sunlight. Check containers regularly for leaks.

CORROSIVENESS: Not corrosive.

STORAGE REGULATIONS: Store in a well ventilated place away from ignition sources, oxidising agents, foodstuffs and clothing. Avoid contact with eyes, skin and clothing. Do not ingest.
Keep containers closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

NATIONAL EXPOSURE STANDARDS: Vapour TWA 52mg/m3, STEL 104 mg/m3; particulate TWA 10mg/m3.

OTHER EXPOSURE INFORMATION: Exposure Standard means the average concentration of a particular substance in the worker’s breathing zone, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers. It can be of three forms; time-weighted average (TWA), peak limitation, or short term exposure limit (STEL).

ENGINEERING CONTROLS: Maintain concentration below recommended exposure limit. Special ventilation is not normally required. However, in the operation of certain equipment or at elevated temperatures mists or vapour may be generated and localised exhaust ventilation should be provided to maintain airborne concentration levels below the exposure standard or the Manufacturer’s recommended exposure standard.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION (CONT)

RESPIRATORY PROTECTION: A respirator is not normally required. Airborne concentrations should be kept at lowest level possible. If vapours, mists or dusts are generated and the recommended exposure limit for the product is exceeded, use appropriate AS/NZS 1715/1716 approved half face filter respirator suitable for organic vapours or air supplied respirator are worn. Air supplied respirators should always be worn when the airborne concentration of the contaminant or the oxygen content of the air is unknown.

EYE PROTECTION: Safety glasses, goggles or face shield as appropriate.

HAND PROTECTION: Use solvent resistant gloves. Nitrile, PVC or neoprene.

FOOTWEAR: Enclosed footwear.

BODY PROTECTION: Overalls or similar protective apparel.

HYGIENE MEASURES: Always wash hands before eating, drinking, smoking or using the toilet. If contamination occurs, change clothing. Launder contaminated clothing before reuse. Discard internally contaminated gloves.

SPECIAL PROTECTIVE MEASURES: Isolate from sources of heat, naked flames or sparks.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Liquid
APPEARANCE: Yellow green viscous liquid.
COLOUR: Yellow green
ODOUR: None
FREEZING/MELTING POINT: -13°C
BOILING POINT: 197°C
DENSITY @ 15°C (kg/L): 1.115 - 1.145
FLASHPOINT (ASTM D-93), Closed Cup: 116
FLAMMABILITY LIMITS -LOWER: 3.2%
FLAMMABILITY LIMITS -UPPER: 15.3%
AUTO IGNITION TEMPERATURE: 412 °C
VOLATILES %: 0
SOLUBILITY IN WATER: Soluble.
SOLUBILITY IN ORGANIC SOLVENTS: Soluble in water, methanol, and diethyl ether.
## 9. PHYSICAL AND CHEMICAL PROPERTIES (CONT)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAPOUR PRESSURE (mm Hg @20°C)</td>
<td>0.06</td>
</tr>
<tr>
<td>VAPOUR DENSITY (Air = 1)</td>
<td>2.1</td>
</tr>
<tr>
<td>VISCOSITY @ 40°C (mm²/s)</td>
<td>No data</td>
</tr>
<tr>
<td>pH (1% in water)</td>
<td>7.5 – 8.5</td>
</tr>
<tr>
<td>OTHER INFORMATION:</td>
<td>These physical data and other properties do not constitute a specification.</td>
</tr>
</tbody>
</table>

## 10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEMICAL STABILITY:</td>
<td>Stable under normal conditions of use.</td>
</tr>
<tr>
<td>CONDITIONS TO AVOID:</td>
<td>No additional remark.</td>
</tr>
<tr>
<td>INCOMPATIBLE MATERIALS:</td>
<td>Strong oxidising agents, acids, alkalis</td>
</tr>
<tr>
<td>HAZARDOUS REACTIONS:</td>
<td>Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire: carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. This will only occur after heating to dryness. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.</td>
</tr>
<tr>
<td>HAZARDOUS POLYMERISTION:</td>
<td>Will not occur.</td>
</tr>
</tbody>
</table>

## 11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>INHALATION:</td>
<td>Inhalation of mists or aerosols can produce respiratory irritation.</td>
</tr>
<tr>
<td>INGESTION:</td>
<td>Hazardous in case of ingestion: approximately 100 ml can be fatal.</td>
</tr>
<tr>
<td>SKIN:</td>
<td>Irritant – prolonged contact may cause dermatitis.</td>
</tr>
<tr>
<td>EYE:</td>
<td>Contact may cause eye irritation.</td>
</tr>
<tr>
<td>REPRODUCTIVE TOXICITY:</td>
<td>Reproductive effects not known.</td>
</tr>
<tr>
<td>CHRONIC EFFECTS:</td>
<td>Toxic to kidneys and liver</td>
</tr>
<tr>
<td>MUTAGENICITY:</td>
<td>Mutagenic effects not known.</td>
</tr>
<tr>
<td>CARCINOGENICITY:</td>
<td>Carcinogenic effects not known.</td>
</tr>
<tr>
<td>TOXICITY TO ANIMALS:</td>
<td>Acute oral toxicity (LD50): 4700mg/kg (Rat).</td>
</tr>
<tr>
<td></td>
<td>Acute dermal toxicity (LD50): 9530 mg/kg (Rabbit)</td>
</tr>
</tbody>
</table>
MATERIAL SAFETY DATA SHEET

12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Ecotoxicity:

Fish: Low toxicity: LC/EC/IC50 > 100mg/l

Aquatic Invertebrates: Low toxicity: LC/EC/IC50 > 100mg/l

Algae: Low toxicity: LC/EC/IC50 > 100mg/l

Microorganisms: Low toxicity: LC/EC/IC50 > 100mg/l

Mobility: Miscible with water

Persistence/degradability: Biodegradable.

13. DISPOSAL CONSIDERATIONS

DISPOSAL CONSIDERATION: Containers should be emptied as completely as practical before disposal. If possible, recycle containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site. This product should be suitable for landfill. However, check with local Waste Disposal Authority before sending there. Note that product properties may have been changed in use; significantly altering it's suitability for landfill. Please do NOT dispose into sewers or waterways.

14. TRANSPORT INFORMATION

TRANSPORT INFORMATION: Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

15. REGULATORY INFORMATION

POISON SCHEDULE: 5

PACKING & LABELLING: No special packaging or labelling requirements.

AUSTRALIAN INVENTORY STATUS: All components are listed or exempted.

16. OTHER INFORMATION

CONTACT PERSON/POINT: General Manager 1300 796 009

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.
If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Material Safety Data Sheets are updated frequently. Please ensure you have a current copy.

  * NOHSC: 1008 Approved Criteria for Classifying Hazardous Substances.
  * NOHSC: 10005 List of Designated Hazardous Substances.
  * NOHSC: 1005 Control of Workplace Hazardous Substances, National Code of Practice.
  * NOHSC: 1003 Exposure Standards for Atmospheric Contaminants in the Occupational Environment, National Exposure Standards.
  * NOHSC: 3008 Exposure Standards for Atmospheric Contaminants in the Occupational Environment, Guidance Note.
  * NOHSC: 1015 Storage and Handling of Workplace Dangerous Goods, National Standard.
  * SUSDP: Standard for the Uniform Scheduling of Drugs and Poisons
  * ADG: Australian Dangerous Goods Code
  * MSDS of component materials.

LAST CHANGE: Supersedes document issued: New
Reason/s for revision: Alignment to NOHSC requirements.

GH110113/I

END OF MSDS