

Fluid Engine Tune-Up

Material Safety Data Sheet

Engine Tune-Up – ETU/4P

PETKETU4

Section 1 – Product and Company Identification

Product Name: Engine Tune-Up

Product Number: ETU/4P

Product Type: Oil Additive

Supplier: Justice Brothers, Inc.
2734 Huntington Dr.
Duarte, CA 91010

EMERGENCY PHONE NUMBERS

CHEMTREC

(800) 424-9300 (24 hours)

(703) 527-3887 (outside U.S)

General Information Phone Number

(626) 359-9174 (8am-5pm, M-F)

Section 2 – Hazards Identification

Emergency Overview

dark red liquid; ether odor

DANGER: CONTAINS PETROLEUM DISTILLATE. HARMFUL OR FATAL IF SWALLOWED. COMBUSTIBLE.

Potential Health Effects

Inhalation May cause irritation of the nose and throat, and signs of nervous system depression (e.g. headache, drowsiness), if high concentrations are inhaled.

Eyes Direct contact with this liquid or exposure to vapors or mists may cause stinging, tearing, redness and swelling.

Skin Can cause skin irritation on prolonged or repeated contact.

Ingestion Ingestion may cause irritation of the mouth, throat and respiratory tract leading to nausea, headache, vomiting and drowsiness.

Section 3 – Composition / Information on Ingredients

List of hazardous ingredients greater than 1.0% concentration (0.1% for carcinogens):

Ingredient Name	CAS Number
petroleum distillates	68476-34-6
4-methyl-2-pentanol	108-11-2
dimercaptothiadiazole derivative	126104-53-8
antimony compound	mixture

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This product is classified as hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 4 – First Aid Measures

- Inhalation If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get medical attention.
- Eyes In case of eye contact, flush eyes with plenty of water for at least 15 minutes. Contact a physician.
- Skin Wash exposed skin with soap and water. Remove contaminated clothing. Get medical attention, if irritation develops.
- Ingestion If swallowed, do not induce vomiting. Call a physician immediately.

Section 5 – Fire Fighting Measures

- Flash Point** > 120 °F
- UEL** not determined
- LEL** not determined
- Extinguisher Media** dry chemical, carbon dioxide, Halon, foam, or water spray

Fire Fighting Procedures

Use appropriate extinguisher media and protective equipment. This material is moderately combustible. Move undamaged containers from fire area and stop any spill/release if it can be done without risk. Water spray may be useful in minimizing or dispersing vapors and cooling equipment exposed to heat and flame. Avoid spreading burning liquid with water used for cooling purposes

Unusual Fire and Explosion Hazards

When heated above the flash point, this material will release flammable vapors which when exposed to an ignition source can burn in the open or be explosive in confined spaces. If container is not properly cooled, it may explode in the heat of a fire. Mists or sprays may be flammable at temperatures below the normal flash point. Combustion may yield carbon monoxide and/or carbon dioxide.

Section 6 – Accidental Release Measures

Combustible Material. Keep all sources of ignition and heat away from spill/release. Stay upwind and isolate hazard area. Wear protective equipment as conditions warrant. Prevent spilled material from entering sewers, storm drains and natural waterways. Spilled material may be absorbed into an appropriate absorbent. Notify fire authorities and appropriate agencies.

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Section 7 – Handling and Storage

Handling Procedures

Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8).

Storage Procedures

This material is combustible and may be ignited by heat, flame, or other sources of ignition. Avoid storing near incompatible materials (see Section 10). Vapor/air explosion hazard indoors/outdoors or in sewers.

Section 8 – Exposure Controls / Personal Protection

Exposure Limits

Ingredient Name	CAS Number	Exposure Limits
petroleum distillates	68476-34-6	ACGIH TLV/TWA 100 ppm TLV/STEL 200 ppm
4-methyl-2-pentanol	108-11-2	OSHA PEL/TWA 25 ppm ACGIH TLV/TWA 25 ppm TLV/STEL 40 ppm
dimercaptothiadiazole derivative	126104-53-8	none established
antimony compound	mixture	TWA 0.5 mg/m3

Engineering Controls

If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional ventilation or exhaust systems may be required.

Gloves

Use of gloves impermeable to the specific material handled is advised to prevent skin contact and possible irritation.

Eye Protection

Approved eye protection to safeguard against potential eye contact, irritation or injury is recommended.

Respiratory Protection

If airborne concentrations exceed established exposure limits, use a supplied air respirator. Do not use a chemical cartridge respirator.

Other Recommendations

It is suggested that a source of clean water be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

Section 9 – Physical and Chemical Properties

Appearance/Odor: dark red liquid; ether odor
Specific Gravity: 0.91
Viscosity: 14.0 cSt (40 °C)
Vapor Pressure: < 4 mmHg
Vapor Density: 3.5 (air = 1.0)
Evaporation Rate: slower (ether = 1)
Flash Point: > 120 °F
UEL: not determined
LEL: not determined
Boiling Point: > 285 °F
Solubility in Water: negligible

Section 10 – Stability and Reactivity

Stability

This product is stable under normal conditions of storage and handling.

Hazardous Polymerization

Hazardous polymerization will not occur.

Incompatibility

Avoid acids, bases, strong oxidizers, and strong reducing agents.

Hazardous Decomposition Products

Combustion may yield carbon monoxide and/or carbon dioxide.

Section 11 – Toxicological Information

Data is listed below for each ingredient where toxicological data is available. Please refer to Section 3 for a summary of potential hazards related to this product.

petroleum distillates (CAS No. 68476-34-6)

This material is not listed as a carcinogen by IARC, NTP, or OSHA. No other specific toxicological data are available for this component.

4-methyl-2-pentanol (CAS No. 108-11-2)

This material is not listed as a carcinogen by IARC, NTP, or OSHA.

Acute Toxicity: LD50 (rat, oral) = 2600 mg/kg; LDLO (rat, inhalation) = 2000 ppm, 4 h; LD50 (rabbit, dermal) = 2875 mg/kg

dimercapthiadiaazole derivative (CAS No. 126104-53-8)

This material is not listed as a carcinogen by IARC, NTP, or OSHA.

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Acute Irritation: rabbits, dermal = mild (irritation index 0.3); no corrosive effects were noted

Acute Toxicity: LD50 (rat, oral) >5000 mg/kg; LD50 (rabbit, dermal) >2000 mg/kg

Mutagenicity: non-mutagenic for bacteria and/or yeast

Target Organs: toxic to kidneys, liver; NOEL (rats/liver, 28 days) = 50 mg/kg/day

antimony compound

This material is not listed as a carcinogen by IARC, NTP, or OSHA.

Acute Toxicity: LD50 (rat, oral) = 16400 mg/kg; LD50 (rabbit, dermal) = 16000 mg/kg

Mutagenicity: non-mutagenic for bacteria and/or yeast

Section 12 – Ecological Information

Data is listed below for each ingredient where toxicological data is available. Please refer to Section 6 for measures in case of an accidental release.

dimercapthotheadiazole derivative (CAS No. 126104-53-8)

Ecotoxicity: LC50 (daphnia, 48 hours) = .083 mg/L; LD50 (rainbow trout, 96 hours) = .061 mg/L

Section 13 – Disposal Considerations

Dispose of product in accordance with local, county, state and federal regulations.

Section 14 – Transport Information

It is the responsibility of the shipper to ensure that all applicable regulations are met. The following are guidelines for identifying this product for shipping. Regulations may vary by country.

THIS PRODUCT IS HAZARDOUS AS DEFINED BY U.S. DOT (49 CFR 172.101)

General Shipment

Proper Shipping Name:	Flammable Liquid, N.O.S. (Petroleum Distillates, Methyl Isobutyl Carbinol)
Hazard Class (Description):	3 (Flammable)
Identification Number:	UN1993
Packing Group:	PG III
Aircraft Limits:	Passenger – 60 L, Cargo – 220 L
Ocean Stowage Class:	A

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Ground Shipment (Bulk - North America Only)

Proper Shipping Name: Combustible Liquid, N.O.S. (Petroleum Distillates, Methyl Isobutyl Carbinol)
Hazard Class (Description): 3 (Flammable)
Identification Number: NA1993
Packing Group: PG III

Ground Shipment (Non-Bulk – North America Only)

Containers with a capacity of 450 L or less are not regulated.

Consumer Commodity (Air Shipments)

Containers not to exceed 0.5 L net capacity. Gross weight not to exceed 25 kg. Must meet packaging requirements.

Proper Shipping Name: Consumer Commodity
Hazard Class (Description): 9 (Miscellaneous)
Identification Number: 8000

Consumer Commodity (Ocean Shipments)

No provisions exist under the IMDG Code. Shipments may follow limited quantity rules if containers do not exceed 5.0 L net capacity and gross weight does not exceed 30 kg.

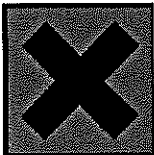
Section 15 – Regulatory Information

Chemical Inventory

All components of this material are listed on the following chemical inventories:
TSCA (United States), DSL/NDSL (Canada), EINECS/ELINCS (European Union)

EC Classification

Danger Classification



Xn (Harmful)



N (Dangerous for the environment)

Risk Phrases

R10: Flammable.
R40: Limited evidence of a carcinogenic effect.
R43: May cause sensitization by skin contact.
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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Safety Phrases S2: Keep out of the reach of children.
S29: Do not empty into drains.
S36/37: Wear suitable protective clothing and gloves.
S46: If swallowed, seek medical advice immediately and show this container or label.
S61: Avoid release to the environment. Refer to special instructions/safety data sheets.

Hazardous Substances petroleum distillates, dimercaptothiadiazole derivative, antimony compound

SARA Title III

Extreme Hazards None of the components of this product are listed on the SARA Section 302 Extremely Hazardous Substances list.

Section 313 This product contains no greater than the indicated amount of the following chemicals listed under SARA Section 313: antimony compounds (5%); zinc compounds (1%)

Classification Acute Hazard: Yes
Chronic Hazard: No
Fire Hazard: Yes
Reactivity Hazard: No

California Proposition 65

This product does not contain any components contained on the California Proposition 65 lists.

Section 16 – Other Information

NFPA Codes Health: 2 Fire: 2 Reactivity: 0

HMIS Codes Health: 2 Fire: 2 Reactivity: 0

Revision Information This document was last reviewed January 5, 2010.
Last revision date was January 19, 2009.

NOTE: The information contained in this Material Safety Data Sheet is furnished without warranty of any kind, expressed or implied. Information in this Data Sheet has been assembled by the manufacturer based on its own studies and on the work of others and is believed to be correct as of the date issued. However, no warranty of any kind is expressed or implied as to the accuracy, completeness, or adequacy of the information obtained herein. The Manufacturer shall not be liable, regardless of fault, to the vendee, the vendee's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, or adequacy of the information obtained herein. It is intended to assist in the normal safe usage of the product.
