

VP RACING FUELS PRODUCT NAME

Leaded Racing Fuel



PRODUCT CODE(S)

003A

Manufacturer

VP Racing Fuels, Inc.

7124 Richter Road
 Elmendorf, Texas 78112
 1-210-635-7744 (product information)
www.VPRacingFuels.com

Emergency Phone Number (24 Hours)

1-800-424-9300 (Chemtrec)

Date Prepared

3/28/2005

Supersedes

None

MSDS Number

003A

Importer

VP Racing Fuels PTY LTD

Unit 24, 85-115 Alfred Rd
 Chipping Norton, NSW, 2170
 Australia
 Ph: 02 9821 1128
www.vpracingfuels.com.au

In a transport emergency dial

000 police or fire brigade.

Section 1. PRODUCT IDENTIFICATION: Leaded Racing Fuel

Leaded racing fuel is a complex mixture of petroleum hydrocarbons. This product is sold for non-highway use in racing motor vehicles only. The Leaded Racing Fuels do not meet the ASTM D4814 Specs for Motor Gasoline and do not contain deposit control additives required by EPA for street or highway purposes. Purchaser is responsible for notifying VP Racing Fuels in writing at the time of the purchase if the fuels will be used for purposes other than as a motor fuel in racing motor vehicles in sanctioned racing events. Purchaser may be subject to additional excise taxes and possible civil penalties for failure to comply with the requirements for using the leaded racing fuels "off road".

Chemical Name(s) of Primary Component(s)

Petroleum Distillates
 Lead

CAS Number(s)

Mixture
 7439-92-1

Section 2. INGREDIENTS/SUMMARY OF HAZARDS

<u>Ingredient(s)</u>	<u>CAS Number(s)</u>	<u>OSHA Hazardous (H)/</u>		<u>Percent</u>
		<u>Non-Hazardous (NH)</u>		
Benzene	71-43-2	H		<10%
Toluene	108-88-3	H		<10%
Dimethylbenzene (xylene)	1330-20-7	H		<10%
Ethylbenzene	100-41-4	H		<10%
Styrene (ethenyl benzene)	100-42-5	H		<10%
1,3-Butadiene	106-99-0	H		<5%
Isoprene	78-79-5	H		<10%

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N-Hexane	110-54-3	H	<2%
Pentane/pentadiene	109-66-0	H	<10%
Cyclopentadiene	542-92-7	H	<10%
Lead	7439-92-1	H	<10%

SARA Title III Hazard Classification:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Immediate (Acute) Health Hazard | <input type="checkbox"/> Sudden Release of Pressure Hazard |
| <input checked="" type="checkbox"/> Delayed (Chronic) Health Hazard | <input type="checkbox"/> Reactive Hazard |
| <input checked="" type="checkbox"/> Fire Hazard | |

WARNING STATEMENTS:

EXTREMELY FLAMMABLE LIQUID/VAPOR. EYE/SKIN/RESPIRATORY IRRITANT AND MAY CAUSE DRYING/DEFATTING OF SKIN. MAY CAUSE CNS EFFECTS INCLUDING DROWSINESS, DISORIENTATION, COUGHING AND NAUSEA. ASPIRATION HAZARD. IF ASPIRATED, MAY CAUSE SEVERE INJURY OR DEATH. MAY BE CARCINOGENIC, NEUROTOXIC OR CAUSE BIRTH DEFECTS.

Section 3. PHYSICAL DATA

- Freezing Point (°F): -80°F (-62°C)
- Boiling Point (°F): 90-400°F (overpoint-endpoint)
- Vapor Pressure: 11 PSIA (max) @ 100°F
- Vapor Density (air = 1): 2.8
- Solubility in Water: Insoluble; soluble in hydrocarbon solvents
- Specific Gravity (water = 1): 0.825-0.880
- Density (g/cm³): 0.825-0.880
- Evaporation Rate (butyl acetate = 1): 3.9
- pH: Not applicable
- Appearance/Odor: Amber liquid with olefinic odor
- Viscosity: 0.9 CST @40°C; 1.2 CST @°C
- Percent Volatile: 99% @ 182°C

Section 4. FIRE AND EXPLOSION HAZARD DATA

- Flash Point (°F)/Method: -12°F (>-11°C)/TCC
- Flammable Limits: LFL 1.3% in air UFL 7.5%
- Extinguishing Media:

<input checked="" type="checkbox"/> Water Fog	<input checked="" type="checkbox"/> Foam
<input checked="" type="checkbox"/> Dry Chemical	<input checked="" type="checkbox"/> CO ₂
<input checked="" type="checkbox"/> Other (specify):	Use water to cool fire exposed containers. If a leak or spill has not ignited; use water fog to disperse

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the vapors and provide protection to personnel attempting to stop leak.

Extinguishing Media to Avoid:

Do not use water jet for safety reasons.

Special Firefighting Procedures:

Use extreme caution due to explosion/flashback hazard. Ensure available escape path. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back. Flowing racing fuel can generate static electricity and cause a fire explosion if a spark occurs in a flammable vapor-air atmosphere.

Special Protective Equipment for Fire Fighters:

The nature of the special protective equipment will depend on the size of the fire, the degree of confinement of the fire and the natural ventilation available. However, a NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing are recommended. Cool containers exposed to fire with water.

Unusual Fire and Explosion Hazards: EXTREME FIRE AND EXPLOSION HAZARD. May flash back. Flowing racing fuel may be ignited by a spark occurring in a flammable vapor atmosphere. Liquid quickly evaporates forming fumes (vapors) which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, electrical motors, switches, lighting or lit cigarettes. Cellular telephones should be turned off when using racing fuel and may be a source of static electricity.

Section 5. REACTIVITY DATA

Stability: () Unstable (X) Stable
Conditions to avoid: Sources of ignition (naked flames, sparks, static electricity and hot surfaces). Can react with strong oxidizing agents such as chlorates, nitrates and peroxides.

Incompatibility (materials to avoid):
 () Water () Strong acids () Strong bases
 () Reducing agents (X) Strong oxidizing materials () Combustible materials
 (X) Other (specify): heat, sparks, flame or other potential sources of ignition

Hazardous Decomposition Products or Byproducts: Combustion can generate carbon monoxide, carbon dioxide, aldehydes and ketones.

Hazardous polymerization: () May occur (X) Will not occur

Section 6. HEALTH HAZARD DATA/FIRST AID PROCEDURES

EXPOSURE LIMITS: No exposure limits have been set for this product, but exposure limits have been established for certain components of this product which are:

<u>Chemical Name(s)</u>	<u>ACGIH/OSHA</u>
Benzene	0.5 ppm ACGIH TWA 2.5 ppm ACGIH STEL

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	1.0 ppm OSHA PEL
	5.0 ppm OSHA Ceiling
Toluene	50 ppm ACGIH TWA
	200 ppm OSHA PEL
	300 ppm OSHA Ceiling
Xylene	100 ppm ACGIH TWA
	150 ppm ACGIH STEL
	100 ppm OSHA PEL
Ethyl benzene	100 ppm ACGIH TWA
	125 ppm ACGIH STEL
	100 ppm OSHA PEL

Section 6. HEALTH HAZARD DATA/FIRST AID PROCEDURES (continued)

EXPOSURE LIMITS: No exposure limits have been set for this product, but exposure limits have been established for certain components of this product which are:

<u>Chemical Name(s)</u>	<u>ACGIH/OSHA</u>
Ethenyl benzene	20 ppm ACGIH TWA
	40 ppm ACGIH STEL (see OSHA Table Z-2)
1,3-Butadiene	2 ppm, A2 ACGIH TWA
	1 ppm OSHA PEL
n-Hexane	50 ppm ACGIH TWA
	50 ppm OSHA PEL
1,3-Cyclopentadiene	75 ppm ACGIH TWA
Lead	0.1 mg Pb/m ³ TWA (NIOSH) Lead concentration in air to be maintained so that lead concentration in worker's blood remains less than or equal to 0.060 mg/100 g of whole blood.
Lead	OSHA PEL: See 1910.1025
Lead	0.05 mg/m ³ TWA; animal carcinogen

EFFECTS OF SINGLE OVEREXPOSURE

- Swallowing:** **Aspiration Hazard. Harmful or fatal if swallowed. Can enter lungs and cause damage.** Irritating to the gastrointestinal tract. Can cause drowsiness, disorientation, coughing, nausea and vomiting (which may cause material to enter lungs and result in death).

- Skin Absorption:** May cause drying or defatting of the skin and irritation. Protection of skin to avoid skin irritation (dermatitis) will also preclude absorption.

- Inhalation:** Respiratory irritant. Can cause drowsiness, disorientation, coughing and nausea and other Central Nervous System effects. Persons with pre-existing respiratory problems such as asthma or allergies may be at increased risk from exposure to this product.

- Skin Contact:** Skin irritant (dermatitis) and/or drying or defatting of the skin may result from skin contact. Persons with "sensitive" skin, skin rashes or broken skin or scabs may be at increased risk from exposure to this product.

- Eye Contact:** Eye irritant in humans. Avoid any use of this product that

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may result in splashing into eyes. Do not rub or touch eyes or face when using this product. Persons with pre-existing eye diseases may be at increased risk from exposure.

EFFECTS OF REPEATED OVEREXPOSURE:

May cause cancer or birth defects. Contains benzene which has been associated with aplastic anemia/anemia in humans. Lead may cause kidney and nervous system effects. Repeated or prolonged exposures should be kept to a minimum.

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Section 6. HEALTH HAZARD DATA/FIRST AID PROCEDURES (continued)

CARCINOGENICITY:

Racing fuel has been shown to be carcinogenic in studies of rats and mice and should be regarded as possibly carcinogenic in humans. Components of this product have been designated by IARC, NTP, ACGIH and/or OSHA as a probable human carcinogen (see section on regulatory information on this MSDS for more information).

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO MAN:

Animal studies of racing fuel have resulted in carcinogenic effects and birth defects. Considerable controversy exists in the scientific community about the possible relevance of these studies to humans. This product contains benzene and lead which are generally considered to cause adverse effects in humans (including anemia and neurotoxicity). However, because of the possibility of these effects, exposure should be minimized.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY OVEREXPOSURE:

Skin/eye diseases, broken skin, sores or skin rashes

TARGET ORGANS:

Liver, kidneys, blood system, nervous system, inner ear

FIRST AID PROCEDURES

EYES:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Lift upper and lower lids and rinse well under them. Get medical attention if irritation persists.

SKIN:

In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Remove contaminated clothing and shoes. Thoroughly clean contaminated clothing and shoes before reuse. Get medical attention if redness or irritation occurs.

INHALATION:

Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. GET IMMEDIATE MEDICAL ATTENTION.

INGESTION:

DO NOT INDUCE VOMITING. If victim is conscious and alert, give 2-3 glasses of water to drink. GET IMMEDIATE MEDICAL ATTENTION.

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Section 6. HEALTH HAZARD DATA/FIRST AID PROCEDURES (continued)NOTE TO PHYSICIAN:

Racing fuel is a serious aspiration hazard, especially in children. Aspiration may occur during swallowing or vomiting, resulting in lung damage that may be fatal. If evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

Section 7. PRECAUTIONS FOR SAFE HANDLING AND USESTEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Product represents an extreme fire hazard. Eliminate all ignition sources including internal combustion engines and power tools. Ventilate area. Keep people away. Stay upwind and warn of possible downwind explosion hazard. Avoid breathing vapor. Use self-contained breathing apparatus or supplied air mask for large spills or confined areas. Avoid contact with skin, eyes and clothing. Contain spill if possible. Remove with inert absorbent. Prevent entry into sewers or waterways.

WASTE DISPOSAL METHOD:

Waste disposal methods should consider that this product is an extreme fire and explosion hazard. Materials contaminated with this product should also be considered highly flammable. Dispose of in accordance with Local, State and Federal regulations. The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

HANDLING AND STORAGE:

EXTREME FIRE HAZARD. Use sparkproof tools. Material may be at elevated temperatures or pressures. Exercise care when opening bleeders and sampling ports. Avoid spillage into hot exhausts and engine parts during refueling. Store in approved racing fuel storage containers away from children or animals. Do not store where product may freeze or in a high temperature atmosphere. Use or store only in a well-ventilated place. Do not breathe vapors or fumes and avoid conditions that may cause splashing. Avoid contact with skin, eyes and clothing. Remove contaminated clothing and shoes and launder thoroughly before reuse. Wash hands thoroughly after handling. Do not rub eyes with soiled hands. Do not taste or swallow. Never siphon racing fuel by mouth. Do not eat, drink or smoke while using this product. Do not pour product into unlabelled containers or in containers that are used for or resemble drinking glasses or bottles. Do not store near heat, sparks or open flames. Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid and or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flames, sparks, static electricity or other sources of ignition as they may explode causing injury or death. Empty container should be completely drained and properly closed. Drums should be promptly returned to a drum reconditioner or properly disposed of in accordance with all laws and regulations.

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Section 7. PRECAUTIONS FOR SAFE HANDLING AND USE (continued)

Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary, but may be sufficient by themselves. Review all operations that have the potential to generate or accumulate electrostatic charge and/or flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, filtering, mixing, switch loading, agitation, and vacuum truck operations, etc.). For more information, refer to OSHA Standard 29 CFR 1910.106, "Flammable and Combustible Liquids," National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" and/or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising Out of Static, Lightning and Stray Currents."

Avoid work practices that may release volatile components into the atmosphere. Local air pollution regulations should be consulted to determine if the release of volatile compounds is regulated or restricted in the area in which this material is used. Avoid contaminating soil or releasing this material into sewage, drainage systems, groundwater or surface bodies of water.

OTHER PRECAUTIONS:

Ground or bond shipping container, transfer line and receiving container. Protect containers against static electricity, lightning, flame, heat, sparks and physical damage.

Section 8. CONTROL MEASURES AND WORKER PROTECTION INFORMATION**Respiratory Protection (specify type):**

Seek professional advice prior to respiratory selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH approved respirator. For emergency or non-routine operations (cleaning spills, reactor vessels or storage tanks or other confined spaces), wear SCBA. Warning! Air-purifying respirators do not protect workers in oxygen deficient atmospheres which must be at least 20% oxygen in confined spaces.

Ventilation:

Use with adequate ventilation. Process enclosures, local exhaust ventilation or other engineering controls may also be used to maintain airborne levels so that they do not fall below recommended exposure limits.

Protective Clothing:

Wear protective clothing if engineering controls or work practices are not adequate to prevent skin contact. Selection of protective clothing may include chemically protective gloves, boots, complete facial protection and aprons to prevent skin and eye contact. Suggested material for protective gloves may include: Teflon®, Viton®, 4H®, Silver Shield®. Persons who are known to have "sensitive" skin or those with pre-existing skin rashes, cuts or sores are advised not to use this product unless wearing impermeable gloves and using all above precautions to minimize the possibility of skin contact.

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Section 8. CONTROL MEASURES AND WORKER PROTECTION INFORMATION (continued):**Eye Protection:**

Wear protective eyeglasses or chemical safety goggles, per OSHA eye and face protection regulations (29 CFR 1910.133), if work practices are not adequate to prevent contact. Contact lenses are not eye protective devices. Full face shield recommended for conditions where liquid contact is possible. Contact lens should not be worn when working with this chemical.

Other Protective Equipment:

Make emergency eyewash stations and washing facilities available in work area. Separate contaminated work clothes from street clothes. Launder or dryclean before reuse. Drycleaning is sometimes more effective in removal of racing fuel from clothing.

Section 9. REGULATORY STATUS**TSCA Inventory Status:**

Listed on the TSCA Inventory.

Inventory Status in Other Countries:

This substance appears on the following inventory lists: EINECS, Australian AICS, Korean Existing Chemical List (ECL), Canadian DSL, and the Philippine (PICCS).

EEC Classification, Packaging and Labeling of Dangerous Substances:

EEC Classification, Packaging and Labeling of Dangerous Substances. Official Journal of the European Communities, No. L 381 (31 Dec 1994). EEC No. 232-349-1, Index No.: 649-261-00-8, Nota(s): H and P, Listed Names: Racing fuel, natural, low boiling point naphtha, Classification: Carc. Cat. 2, R 45; Xn, R 65, Danger Symbol: T, Risk Phrase: R: 45-65, Safety Phrase: S: 53-45, Concentration Limits: C>=10%; T, R 45-65 0, 1% <= C< 10%; T, R45, Nota: 4. Subject to EC Carcinogens Directive 90/394/EEC

Transportation Status:

US DOT Proper Shipping Name:	Petroleum Distillates, NOS
US DOT Hazard Class:	3, Flammable Liquid
US DOT ID Number:	UN1268
US DOT Packing Group:	II
NA Emergency Response Guide:	131
IMO, IMDG Class:	3
IMO Symbol:	Flammable Liquid
Marine Pollutant	No

Reportable Quantity (RQ), under U.S. EPA CERCLA:

CERCLA section 101(14), known as the "petroleum exclusion" section, covers crude oil and the crude oil constituents that are indigenous to the petroleum (e.g., xylene), or

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Section 9. REGULATORY STATUS (continued)

that are normally mixed with or added to crude oil or crude oil fractions during the refining process (e.g., tetraethyl lead). On August 12, 1983, EPA's Office of General Counsel (OGC) issued a memorandum indicating that racing fuel blended during the refining process is within the scope of the petroleum exclusion.

Specifically Listed under SARA Title III:

- () Section 302 Extremely Hazardous Substances
- () Section 313 Toxic Chemicals
- () Not listed
- (X) Not applicable under the petroleum exclusion section

Canadian Environmental Protection Act - Domestic Substances List (DSL)

This material is on the DSL. Lead, a component of this racing fuel, falls under other Canadian regulations (see Canada Gazette, Part II, Nov. 7, 2001, Canada Gazette, Part I, 131, #14:1064, April 5, 1997, Canada Gazette, Part I, 130#7:512, February 17, 1996)

Workplace Hazardous Material Information System (WHMIS) Ingredient List - Canada

WHMIS:

WHMIS Ingredient List (Canada), Canada Gazette, Part II, 122(2) (01 Jan 88)

California Proposition 65 (Safe Drinking Water Act and Toxic Enforcement Act of 1986)

This material is known to the State of California to cause cancer, birth defects or other reproductive harm, at levels that would require a warning under the statute.

California Hazardous Substances List

Exempt when used as a fuel.

Pennsylvania (Worker and Community Right-to-Know Act)

This material is subject to the Worker and Community Right-to-Know Act at levels that would require identification on the MSDS.

Massachusetts (Hazardous Substances Disclosure by Employers)

This material appears on the Massachusetts Substances List.

California South Coast Air Quality Management District Rule 443.1 (Labeling of Materials Containing Organic Solvents)

This product is exempt from these requirements when the primary intended use is as a fuel.

State of New Jersey Right-to-Know

This material appears on the Hazardous Substance List.

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Section 9: REGULATORY STATUS (continued)

State of Illinois Right-to-Know

This material is listed on the Toxic Substances List.

Other State or Federal Regulations

Racing fuel is a complex petroleum hydrocarbon mixture consisting mainly of ethyl benzene, ethenyl benzene, butadiene, toluene, n-hexane, dimethylbenzene, cyclopentadiene, benzene and isoprene. Ethyl benzene is listed under the following: SARA 313, Mass RTK, IARC Group 2B, PA RTK, NJ RTK, CERCLA 302.4, MN RTK, Canadian WHMIS and TSCA Section 8(d). Ethenyl benzene is listed under the following: SARA 313, Mass RTK, IARC Group 2B, PA RTK, NJ RTK, CERCLA 302.4, MN RTK, Canadian WHMIS. Butadiene is listed under the following: SARA 313, Mass RTK, NTP Carcinogen, CA Prop 65 Carcinogen, IARC Group 2A, PA RTK, NJ RTK, CERCLA 302.4, MN RTK, EPA Carcinogen and Canadian WHMIS. Toluene is listed under the following: SARA 313, Mass RTK, CA Prop 65 Reproductive Toxin, PA RTK, NJ RTK, CERCLA 302.4, MN RTK, TSCA Section 8(d) and Canadian WHMIS. N-Hexane is listed under the following: SARA 313, Mass RTK, PA RTK, NJ RTK, CERCLA 302.4, MN RTK, TSCA Section 4(a) and Canadian WHMIS. Dimethylbenzene is listed under the following: SARA 313, Mass RTK, PA RTK, NJ RTK, CERCLA 302.4 and MN RTK. 1,3 Cyclopentadiene is listed under the following: Mass RTK, PA RTK, NJ RTK, MN RTK and Canadian WHMIS. Benzene is listed under the following: SARA 313, Mass RTK, NTP Carcinogen, CA Prop 65 Carcinogen, IARC Group 1, PA RTK, NJ RTK, CERCLA 302.4, MN RTK, EPA Carcinogen and Canadian WHMIS. Isoprene is listed under the following: Mass RTK, NTP Carcinogen, CA Prop 65 Carcinogen, IARC Group 2B, PA RTK, NJ RTK, CERCLA 302.4 and Canadian WHMIS. Lead is listed under California Prop 65 as a reproductive toxin with the maximum allowable daily level of 0.5 mg/day. Lead is also listed under the following: Illinois RTK, MA RTK, Michigan Critical Materials Register, NJ RTK (special hazard,

Other State or Federal Regulations (continued)

code: TE (teratogen), PA RTK (environmental hazard).

Note: This section provides selected regulatory information on this product including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws pertaining to the product being used.

Section 10. ECOLOGICAL INFORMATION:

Spillages may penetrate the soil causing groundwater contamination. Harmful to aquatic organisms. Considered to have low potential for bioaccumulation and/or persistence in the environment.

Section 11. OTHER INFORMATION:

There may be additional information available on this product including Technical Bulletins, sales or marketing information. If available, it may be obtained by calling the main number at 210-635-7744.

Section 12. REFERENCES:

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1. American National Standard for Hazardous Industrial Chemicals--Precautionary Labeling. Draft Z129.1-1999, Revision of ANSI Z129.1-1994. American National Standards Institute, 11 West 42nd Street, New York, New York 10036. Draft June 24, 1999.
2. Material Safety Data sheets from component suppliers.

The information herein is given in good faith
but no warranty, expressed or implied, is made.

END OF MSDS DOCUMENT