

USED ANTIFREEZE
MATERIAL SAFETY INFORMATION SHEET FOR USA AND
CANADA



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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: USED ANTIFREEZE

SYNONYMS: 1,2-Ethanediol; 1,2-Ethylene glycol; 2-Hydroxyethanol; Ethylene alcohol

PRODUCT CODE: Prefix 95P

PRODUCT USE: Used automotive coolant.
If this product is used in combination with other products, refer to the Material Safety Data Sheet for those products.

24-HOUR EMERGENCY PHONE NUMBERS
MEDICAL AND TRANSPORTATION (SPILL):

These numbers are for emergency use only. If you desire non-emergency product information, please call a phone number listed below.

1-800-468-1760

SUPPLIER: Safety-Kleen
5400 Legacy Drive
Cluster II, Building 3
Plano, Texas 75024
USA
1-800-669-5740

TECHNICAL INFORMATION: 1-800-669-5740 Press 1 then Enter 7500

MSDS FORM NUMBER: 82912

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PREPARED BY: Product MSDS Coordinator

APPROVED BY: MSDS Task Force

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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

WT%	NAME	SYNONYM	CAS NO.	OSHA PEL**		ACGIH TLV®		LD ^a	LC ^b
				TWA	STEL	TWA	STEL		
30-87	Water	N.Av.	7732-18-5	N.Av.	N.Av.	N.Av.	N.Av.	N.Av.	N.Av.
2-68	Ethylene glycol	1,2-Ethanediol; 1,2-Dihydroxyethane	107-21-1	N.Av.	N.Av.	100 (Ceiling value)	N.Av.	4700 mg/kg (9530 uL/kg) ^c	N.Av.
4-44	1,2-Propylene glycol	N.Av.	57-55-6	N.Av. ^d	N.Av.	N.Av.	N.Av.	20 gm/kg (20800 mg/kg) ^c	N.Av.
1-2	Diethylene glycol	2,2'-oxybis-ethanol	111-46-6	N.Av. ^e	N.Av.	N.Av.	N.Av.	12565 mg/kg (11890 mg/kg) ^c	N.Av.

**OSHA Final PEL value (enforceable). Some States have adopted more stringent values.

N.Av. = Not Available

^aOral-Rat LD₅₀

^bInhalation-Rat LC₅₀

^cSkin-Rabbit LD₅₀

^dAIHA recommended TWA 50 ppm

^eAIHA recommended TWA 10mg/m³

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE

Liquid, green, sweet odor. Syrupy.

DANGER!

HEALTH HAZARDS

May be harmful if inhaled.

May be fatal if swallowed.

May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin. Contains material which may cause birth defects. Contains material which may cause lung, kidney, liver, central nervous system, and eye damage.

POTENTIAL HEALTH EFFECTS

INHALATION

(BREATHING):

This product is not likely to present an inhalation hazard at normal temperatures and pressures. However, when aerosolizing, misting, or heating this product, high concentrations of generated vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may be harmful if inhaled. High concentrations of vapor or mist may cause liver, lung; and kidney damage. High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.

EYES:

May cause irritation. May cause inflammation of the iris, ciliary body, and the membrane lining the eyelids and covering the eyeball (conjunctivitis). May cause corneal damage.

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SKIN: May cause irritation. Not likely to be absorbed through the skin in harmful amounts.

INGESTION (SWALLOWING): May be fatal if swallowed. The estimated lethal dose is 100 ml (3.4 ounces). May damage lung, liver, and kidneys. May cause throat irritation, nausea, vomiting, central nervous system effects as noted under **INHALATION (BREATHING)**, unconsciousness, coma, and death. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing liver, kidney, respiratory tract (nose, throat, and lungs), central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

CHRONIC: Prolonged or repeated inhalation may cause toxic effects as noted under **INHALATION (BREATHING)**. Prolonged or repeated eye contact may cause blindness. Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis). Prolonged or repeated exposure may have reproductive toxicity, teratogenic, or mutagenic effects.

CANCER INFORMATION: No known carcinogenicity. For more information, see **SECTION 11: CARCINOGENICITY**.

POTENTIAL ENVIRONMENTAL EFFECTS

Not available. Also see **SECTION 12: ECOLOGICAL INFORMATION**.

SECTION 4: FIRST AID MEASURES

INHALATION (BREATHING): Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

EYES: If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

SKIN: Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.

INGESTION (SWALLOWING): Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything to an unconscious person by mouth.

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NOTE TO PHYSICIANS:

Treat symptomatically and supportively. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

Ethylene glycol is metabolized by alcohol dehydrogenase to various metabolites including glycoaldehyde, glycolic acid, and oxalic acid. The signs and symptoms in ethylene glycol poisoning are those of metabolic acidosis, central nervous system depression, and kidney damage. The currently recommended medical management of ethylene glycol poisoning includes elimination of ethylene glycol and metabolites, correction of metabolic acidosis, and prevention of kidney injury. As a competitive substrate for alcohol dehydrogenase, ethanol is antidotal when given in the early stages of intoxication because it blocks the formation of nephrotoxic metabolites. A more effective intravenous antidote is 4-methylpyrazole, a potent inhibitor of alcohol dehydrogenase, which effectively blocks the formation of toxic metabolites. Pulmonary edema with hypoxia has been described in a number of patients following ethylene glycol poisoning. Respiratory support with mechanical ventilation and positive end expiratory pressure may be required. There may be cranial nerve involvement in the later stages of toxicity from swallowing ethylene glycol. Effects have been reported presenting bilateral facial paralysis, diminished hearing, and dysphagia.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT:	>200°F (>93.3°C)	
FLAMMABLE LIMITS IN AIR:	LOWER: 3.2 VOL% (ethylene glycol)	UPPER: 15.3 VOL% (ethylene glycol)
AUTOIGNITION TEMPERATURE:	748°F (398°C) (ethylene glycol)	
HAZARDOUS COMBUSTION PRODUCTS:	Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.	
CONDITIONS OF FLAMMABILITY:	Heat, sparks, or flame. Products may burn, but do not ignite readily.	
EXTINGUISHING MEDIA:	Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, or water fog. Water or foam may cause frothing.	

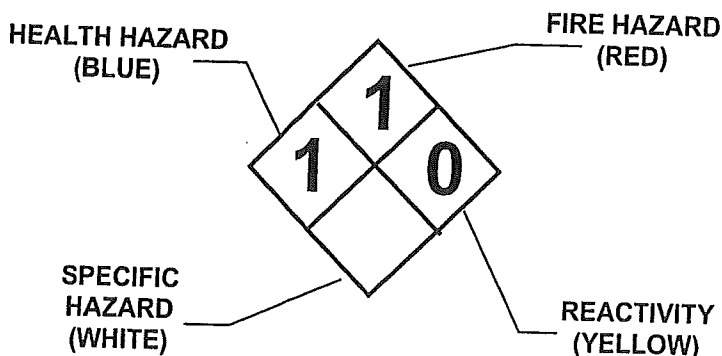
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NFPA 704

HAZARD IDENTIFICATION:

This information is intended solely for the use by individuals trained in this system.



FIRE FIGHTING INSTRUCTIONS:

Keep storage containers cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

FIRE AND EXPLOSION HAZARDS:

Vapors will spread along the ground and collect in low or confined areas. Heated containers may rupture or be thrown into the air. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact or static discharge.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING:

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools and explosion-proof equipment. When transferring large volumes of product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes.

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SHIPPING AND STORING: Keep container tightly closed when not in use and during transport. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources or ignition. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORTATION INFORMATION** for Packing Group information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: Use NIOSH-certified, full-face, air-purifying respirators with P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1920.134; or in Canada with CSA Standard Z94.4.

EYE PROTECTION: Where eye contact is likely, wear chemical goggles; contact lens use is not recommended.

SKIN PROTECTION: Where skin contact is likely, wear Polyvinyl Chloride (PVC), neoprene, butyl rubber, nitrile, or equivalent protective gloves; use of polyvinyl alcohol (PVA) or equivalent gloves is not recommended. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

PERSONAL HYGIENE: Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with this product.

OTHER PROTECTIVE EQUIPMENT: Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, AND ODOR:	Liquid, green, sweet odor. Syrupy.
ODOR THRESHOLD:	Not available.
MOLECULAR WEIGHT:	106.
SPECIFIC GRAVITY:	>1 (water = 1)
DENSITY:	Not available.
VAPOR DENSITY:	>1 (air = 1)
VAPOR PRESSURE:	<0.1 mmHg at 68°F (20°C)
BOILING POINT:	>300°F (148.9°C)
FREEZING/MELTING POINT:	Not available.
pH:	6-10
EVAPORATION RATE:	Not available.
SOLUBILITY IN WATER:	Complete
FLASH POINT:	>200°F (>93.3°C)
FLAMMABLE LIMITS IN AIR:	LOWER: 3.2 VOL% (ethylene glycol) UPPER: 15.3 VOL% (ethylene glycol)
AUTOIGNITION TEMPERATURE:	748°F (398°C) (ethylene glycol)

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.
INCOMPATIBILITY:	Avoid acids, alkalies, oxidizing agents, or reactive metals.
REACTIVITY:	Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

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HAZARDOUS DECOMPOSITION PRODUCTS: None under normal temperatures and pressures. See also **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.**

SECTION 11: TOXICOLOGICAL INFORMATION

SENSITIZATION: Ethylene glycol has demonstrated human effects of skin sensitization.

Based on best current information, the other components listed in **SECTION 2** are not sensitizers.

MUTAGENICITY: Ethylene glycol and diethylene glycol have demonstrated human effects of mutagenicity.

CARCINOGENICITY: Based on best current information, there is no known carcinogenicity as categorized by ACGIH A1 or A2 substances; as categorized by IARC Group 1, Group 2A, or Group 2B agents; or as listed by NTP as either known carcinogens or substances for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

REPRODUCTIVE TOXICITY: Ethylene glycol and diethylene glycol have demonstrated animal effects of reproductive toxicity.

TERATOGENICITY: Ethylene glycol and diethylene glycol have demonstrated animal effects of teratogenicity.

TOXICOLOGICALLY SYNERGISTIC PRODUCT(S): Based on best current information, there are no known toxicologically synergistic products associated with this product.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:	Ethylene glycol (107-21-1)		Conditions
	Test & Species		
	96 Hr LC50 rainbow trout	41000 mg/L	
	96 Hr LC50 bluegill	27500 mg/L	
	96 Hr LC50 goldfish	27500 mg/L	
	1,2-Propylene glycol (57-55-6)		
	24 Hr LC50 goldfish	5000 mg/L	
	48 Hr LC50 guppy	10000 mg/L	

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Diethylene glycol (111-46-6)

96 Hr LC50 fathead minnow 75200 mg/L flow-through

OCTANOL/WATER

Not available.

PARTITION COEFFICIENT:

VOLATILE ORGANIC

Not available.

COMPOUNDS:

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL: Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

USEPA WASTE CODES(S): This product, if discarded, is not expected to be a characteristic or listed hazardous waste. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of this product.

SECTION 14: TRANSPORT INFORMATION

DOT: Shipping Name: Not regulated as a hazardous material for transportation.

TDG: Shipping Name: Not regulated as a dangerous good for transportation.

EMERGENCY RESPONSE Not applicable.

GUIDE NUMBER: Reference *North American Emergency Response Guidebook*

SECTION 15: REGULATORY INFORMATION

USA REGULATIONS

SARA SECTIONS 302 AND 304: Based on the ingredient(s) listed in **SECTION 2**, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

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SECTION 16. OTHER INFORMATION

REVISION INFORMATION:

LABEL/OTHER INFORMATION: Not available.

User assumes all risks incident to the use of this(these) product(s). To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the product(s) as supplied to the user.

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Material Safety Data Sheet

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1. MATERIAL AND COMPANY IDENTIFICATION

Material Name : Rotella T Synthetic Blend Engine Oil SAE 10W-40

Manufacturer/Supplier : SOPUS Products
PO BOX 4427
Houston, TX 77210-4427
USA

MSDS Request : 877-276-7285

Emergency Telephone Number

Spill Information : 877-242-7400

Health Information : 877-504-9351

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity	CAS No.	Concentration
Zinc alkyl dithiophosphate	68649-42-3	1.00 - 5.00 %
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	1.00 - 5.00 %

Highly refined mineral oil, severely hydrotreated slack wax, synthetic esters, polyolefins and additives.

3. HAZARDS IDENTIFICATION

Emergency Overview	
Appearance and Odour	: May be dyed. Liquid at room temperature. Slight hydrocarbon.
Health Hazards	: Not classified as dangerous for supply or conveyance.
Safety Hazards	: Not classified as flammable but will burn.
Environmental Hazards	: Not classified as dangerous for the environment.

Health Hazards : Not expected to be a health hazard when used under normal conditions.

Health Hazards
Inhalation : Under normal conditions of use, this is not expected to be a primary route of exposure.

Skin Contact : Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Eye Contact : May cause slight irritation to eyes.

Ingestion : Low toxicity if swallowed.

Other Information : Used oil may contain harmful impurities.

Signs and Symptoms : Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas.
Ingestion may result in nausea, vomiting and/or diarrhoea.

Aggravated Medical Condition : Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this

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material: Skin.

Environmental Hazards : Not classified as dangerous for the environment.

Additional Information : Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

4. FIRST AID MEASURES

General Information : Not expected to be a health hazard when used under normal conditions.

Inhalation : No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.

Skin Contact : Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.

Eye Contact : Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

Ingestion : In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

Advice to Physician : Treat symptomatically.

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Flash point : ≥ 200 °C / 392 °F (COC)

Upper / lower Flammability or Explosion limits : Typical 1 - 10 %(V)

Auto ignition temperature : > 320 °C / 608 °F

Specific Hazards : Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.

Suitable Extinguishing Media : Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable Extinguishing Media : Do not use water in a jet.

Protective Equipment for Firefighters : Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe all relevant local and international regulations.

Protective measures : Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

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- Clean Up Methods** : Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.
- Additional Advice** : Local authorities should be advised if significant spillages cannot be contained.

7. HANDLING AND STORAGE

- General Precautions** : Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.
- Handling** : Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used.
- Storage** : Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closeable containers. Storage Temperature: 0 - 50 °C / 32 - 122 °F
- Recommended Materials** : For containers or container linings, use mild steel or high density polyethylene.
- Unsuitable Materials** : PVC.
- Additional Information** : Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Occupational Exposure Limits**

Material	Source	Type	ppm	mg/m3	Notation
Oil mist, mineral	ACGIH	TWA(Mist.)		5 mg/m3	
Oil mist, mineral	ACGIH	STEL(Mist.)		10 mg/m3	

Distillates (petroleum), hydrotreated light paraffinic	ACGIH	TWA(Mist.)		5 mg/m3	
Distillates (petroleum), hydrotreated light paraffinic	ACGIH	STEL(Mist.)		10 mg/m3	

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- Exposure Controls** : The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.
- Personal Protective Equipment** : Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.
- Respiratory Protection** : No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65 °C (149 °F)].
- Hand Protection** : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.
- Eye Protection** : Wear safety glasses or full face shield if splashes are likely to occur.
- Protective Clothing** : Skin protection not ordinarily required beyond standard issue work clothes.
- Monitoring Methods** : Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.
- Environmental Exposure Controls** : Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	: May be dyed. Liquid at room temperature.
Odour	: Slight hydrocarbon.
pH	: Not applicable.
Initial Boiling Point and Boiling Range	: > 280 °C / 536 °F estimated value(s)
Pour point	: >= -30 °C / -22 °F
Flash point	: >= 200 °C / 392 °F (COC)
Upper / lower Flammability or Explosion limits	: Typical 1 - 10 %(V)
Auto-ignition temperature	: > 320 °C / 608 °F
Vapour pressure	: < 0.5 Pa at 20 °C / 68 °F (estimated value(s))
Specific gravity	: >= 0.87 at 15 °C / 59 °F
Density	: >= 7.5 g/cm3 at 15 °C / 59 °F
Water solubility	: Negligible.
n-octanol/water partition coefficient (log Pow)	: > 6 (based on information on similar products)
Kinematic viscosity	: Typical 251 mm2/s at 40 °C / 104 °F
Vapour density (air=1)	: > 1 (estimated value(s))
Evaporation rate (nBuAc=1)	: Data not available

10. STABILITY AND REACTIVITY

Stability	: Stable.
Conditions to Avoid	: Extremes of temperature and direct sunlight.
Materials to Avoid	: Strong oxidising agents.
Hazardous Decomposition Products	: Hazardous decomposition products are not expected to form during normal storage.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment	: Information given is based on data on the components and the toxicology of similar products.
Acute Oral Toxicity	: Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat
Acute Dermal Toxicity	: Expected to be of low toxicity: LD50 > 5000 mg/kg , Rabbit
Acute Inhalation Toxicity	: Not considered to be an inhalation hazard under normal conditions of use.
Skin Irritation	: Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.
Eye Irritation	: Expected to be slightly irritating.
Respiratory Irritation	: Inhalation of vapours or mists may cause irritation.
Sensitisation	: Not expected to be a skin sensitiser.
Repeated Dose Toxicity	: Not expected to be a hazard.
Mutagenicity	: Not considered a mutagenic hazard.
Carcinogenicity	: Components are not known to be associated with carcinogenic effects.
Material	: Carcinogenicity Classification
Molybdenum disulphide	: ACGIH Group A3: Confirmed animal carcinogen with unknown relevance to humans.

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- Reproductive and Developmental Toxicity Additional Information** : Not expected to be a hazard.
- : 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 the environment on disposal. ALL used oil should be handled with caution and skin contact avoided as far as possible. Continuous contact with used engine oils has caused skin cancer in animal tests.

12. ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

- Acute Toxicity** : Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract).
- Mobility** : Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.
- Persistence/degradability** : Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.
- Bioaccumulation** : Contains components with the potential to bioaccumulate.
- Other Adverse Effects** : Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

13. DISPOSAL CONSIDERATIONS

- Material Disposal** : Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.
- Container Disposal** : Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.
- Local Legislation** : Disposal should be in accordance with applicable regional, national, and local laws and regulations.

14. TRANSPORT INFORMATION

US Department of Transportation Classification (49CFR)

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This material is not subject to DOT regulations under 49 CFR Parts 171-180.

IMDG

This material is not classified as dangerous under IMDG regulations.

IATA (Country variations may apply)

This material is not classified as dangerous under IATA regulations.

15. REGULATORY INFORMATION

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Federal Regulatory Status

Notification Status

DSL	All components listed.
EINECS	All components listed.
TSCA	All components listed.

Comprehensive Environmental Release, Compensation & Liability Act (CERCLA)

Rotella T Synthetic Blend Engine Oil Reportable quantity: 33 lbs
SAE 10W-40 ()

Zinc alkyl dithiophosphate (68649-
42-3)

SARA Hazard Categories (311/312)

No SARA 311/312 Hazards.

SARA Toxic Release Inventory (TRI) (313)

Zinc alkyl dithiophosphate (68649- 3.00%
42-3)

State Regulatory Status

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

This material does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

New Jersey Right-To-Know Chemical List

Zinc alkyl dithiophosphate (68649-42-3) Listed.

Material Safety Data Sheet

Distillates (petroleum), hydrotreated light paraffinic (64742- Listed.
55-8)

Pennsylvania Right-To-Know Chemical List

Distillates (petroleum), hydrotreated light paraffinic (64742- Listed.
55-8)

16. OTHER INFORMATION

- NFPA Rating (Health, Fire, Reactivity)** : 0, 1, 0
- MSDS Version Number** : 5.0
- MSDS Effective Date** : 07/07/2008
- MSDS Revisions** : A vertical bar (|) in the left margin indicates an amendment from the previous version.
- MSDS Regulation** : The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
- MSDS Distribution** : The information in this document should be made available to all who may handle the product.
- Disclaimer** : The information contained herein is based on our current knowledge of the underlying data and is intended to describe the product for the purpose of health, safety and environmental requirements only. No warranty or guarantee is expressed or implied regarding the accuracy of these data or the results to be obtained from the use of the product.

USED OIL



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MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: USED OIL

SYNONYMS: Waste oil; Used lubricating oil; Oil and water mixture

PRODUCT PART NUMBER(S): Not applicable.

PRODUCT USE: Oil or water mixture for re-refining or reprocessing.
If this product is used in combination with other products, refer to the Material Safety Data Sheets for those products.

24-HOUR EMERGENCY PHONE NUMBERS MEDICAL AND TRANSPORTATION (SPILL):

These numbers are for emergency use only. If you desire non-emergency product information, please call a phone number listed below.

1-800-468-1760

MANUFACTURER/ SUPPLIER: Safety-Kleen Systems, Inc.
5400 Legacy Drive
Cluster II, Building 3
Plano, Texas 75024
USA
1-800-669-5740
www.Safety-Kleen.com

TECHNICAL INFORMATION: 1-800-669-5740 Press 1 then 1 then Extension 7500

MSDS FORM NUMBER: 81451

ISSUE: September 20, 2007

ORIGINAL ISSUE: January 15, 1990

SUPERSEDES: June 11, 2007

PREPARED BY: Product MSDS Coordinator

APPROVED BY: MSDS Task Force

**USED OIL
MATERIAL SAFETY DATA SHEET**

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

WT%	NAME	SYNONYM	CAS NO.	OSHA PEL		ACGIH TLV®		LD ^a	LC ^b
				TWA	STEL	TWA	STEL		
80 to 100	Lubricating oils, used	Used oil	70514-12-4	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 20*	Water/solids	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 10*	Hydrocarbon solvents. May include gasoline, diesel fuel, jet fuel, mineral spirits, etc.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 1.5*	Metals. May include lead, iron, zinc, copper, chromium, arsenic, nickel, and others: each below 1.0 WT%.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 1.0*	Polynuclear aromatics. May include naphthalene, fluoranthene, phenanthrene, pyrene, and others: each below 0.3 WT%.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0 to 0.5*	Chlorinated solvents.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.

N.Av. = Not Available *Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

^aOral-Rat LD₅₀ (mg/kg)
^bInhalation-Rat LC₅₀

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE

Liquid, black and viscous (thick), petroleum odor.

WARNING!

PHYSICAL HAZARDS

Combustible liquid.

HEALTH HAZARDS

May be harmful if inhaled.

May be harmful if absorbed through skin.

May be harmful or fatal if swallowed.

May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.

Suspect cancer hazard. Contains material which can cause cancer. Risk of cancer depends on duration and level of exposure.

Contains material which can cause birth defects.

Contains material which can cause central nervous system damage.

ENVIRONMENTAL HAZARDS

Product may be toxic to fish, plants, wildlife, and/or domestic animals.

USED OIL

MATERIAL SAFETY DATA SHEET

POTENTIAL HEALTH EFFECTS

Effects may vary depending on material composition. Typical effects may include:

INHALATION (BREATHING): High concentrations of vapor or mist may be harmful if inhaled. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.

EYES: May cause irritation.

SKIN: May cause irritation. Product may be absorbed through the skin and cause harm as noted under **INHALATION (BREATHING)**.

INGESTION (SWALLOWING): May be harmful or fatal if swallowed. May cause throat irritation, nausea, vomiting, and central nervous system effects as noted under **INHALATION (BREATHING)**. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing cardiovascular, liver, kidney, respiratory tract (nose, throat, and lungs), central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

CHRONIC: Prolonged or repeated inhalation may cause oil pneumonia, lung tissue inflammation, fibrous tissue formation, and/or toxic effects as noted under **INHALATION (BREATHING)**. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

CANCER INFORMATION: This product contains mineral oils, untreated or mildly treated, which can cause cancer. This product may contain hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics which can cause cancer. Risk of cancer depends on duration and level of exposure. For more information, see **SECTION 11: CARCINOGENICITY**.

POTENTIAL ENVIRONMENTAL EFFECTS

Product may be toxic to fish, plants, wildlife, and/or domestic animals. Also see **SECTION 12: ECOLOGICAL INFORMATION**.

**USED OIL
MATERIAL SAFETY DATA SHEET**

SECTION 4: FIRST AID MEASURES

- INHALATION:
(BREATHING)** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.
- EYES:** If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.
- SKIN:** Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.
- INGESTION:
(SWALLOWING)** Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information.
If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything to an unconscious person by mouth.
- NOTE TO
PHYSICIANS:** Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

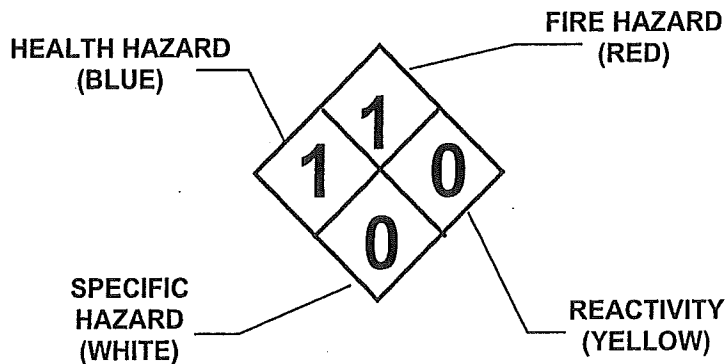
SECTION 5: FIRE FIGHTING MEASURES

- FLASH POINT:** >200°F (93°C) (minimum) Pensky-Martens Closed Cup
- FLAMMABLE LIMITS IN AIR:** Not available.
- AUTOIGNITION
TEMPERATURE:** Not available.
- HAZARDOUS COMBUSTION
PRODUCTS:** Decomposition and combustion materials may be toxic. Burning may produce phosgene gas, nitrogen oxides, carbon monoxide, and unidentified organic compounds.
- CONDITIONS OF
FLAMMABILITY:** Heat, sparks, or flame. Product may burn but does not ignite readily.
- EXTINGUISHING MEDIA:** Use carbon dioxide, regular foam, dry chemical, water spray, or water fog.

USED OIL MATERIAL SAFETY DATA SHEET

NFPA 704 HAZARD IDENTIFICATION:

This information is intended solely for the use by individuals trained in this system.



FIRE FIGHTING INSTRUCTIONS:

Keep storage containers cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

FIRE AND EXPLOSION HAZARDS:

Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact. Product may be sensitive to static discharge, which could result in fire or explosion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface waters and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **SECTION 15: REGULATORY INFORMATION**.

USED OIL MATERIAL SAFETY DATA SHEET

SECTION 7: HANDLING AND STORAGE

HANDLING: Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, storage tanks, tanker trucks, and rail tank cars should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.

SHIPPING AND STORING: Keep container tightly closed when not in use and during transport. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORT INFORMATION** for Packing Group information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use general ventilation, process enclosures, local exhaust ventilation, or other engineering controls to control air-borne levels. Where explosive mixtures may be present, equipment safe for such locations should be used.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910.134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions warrant a respirator's use. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

EYE PROTECTION: Wearing chemical goggles is recommended.
Contact lens may be worn with eye protection.

SKIN PROTECTION: Where prolonged or repeated skin contact is likely, wear neoprene, nitrile (4 mil minimum), PVC (polyvinyl chloride), or equivalent protective gloves; wearing natural rubber or equivalent gloves is not recommended.

When product is heated and skin contact is likely, wear heat-insulating gloves, boots, and other protective clothing.

To avoid prolonged or repeated contact with product where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

USED OIL MATERIAL SAFETY DATA SHEET

PERSONAL HYGIENE: Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with the product.

OTHER PROTECTIVE EQUIPMENT: Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, AND ODOR: Liquid, black and viscous (thick), petroleum odor.

ODOR THRESHOLD: Not available.

MOLECULAR WEIGHT: Not applicable.

SPECIFIC GRAVITY: 0.8 to 1.0 at 60°F (15.6°C) (water = 1)

DENSITY: 6.7 to 8.3 LB/US gal (800 to 1000 g/l) (approximately)

VAPOR DENSITY: greater than 1 (air = 1) (based on kerosene)

VAPOR PRESSURE: Not available.

BOILING POINT: Not available.

FREEZING/MELTING POINT: Not available.

pH: Not applicable.

EVAPORATION RATE: less than 1 (butyl acetate = 1)

SOLUBILITY IN WATER: Slight.

FLASH POINT: >200°F (93°C) (minimum) Pensky-Martens Closed Cup

FLAMMABLE LIMITS IN AIR: Not available.

AUTOIGNITION TEMPERATURE: Not available.

**USED OIL
MATERIAL SAFETY DATA SHEET**

SECTION 10: STABILITY AND REACTIVITY

- STABILITY:** Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.
- INCOMPATIBILITY:** Avoid acids, alkalies, oxidizing agents, reducing agents, reactive halogens, or reactive metals.
- REACTIVITY:** Polymerization is not known to occur under normal temperatures and pressures. Not reactive with water.
- HAZARDOUS DECOMPOSITION PRODUCTS:** None under normal temperatures and pressures. Also see **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.**

SECTION 11: TOXICOLOGICAL INFORMATION

- SENSITIZATION:** Based on best current information, there may be known human sensitization associated with this product.
- MUTAGENICITY:** Based on best current information, there may be mutagenicity associated with this product.
- CARCINOGENICITY:** Mineral oils, untreated or mildly treated are listed by IARC as a known carcinogen. Mineral oils, untreated or mildly treated are classified by NTP as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are listed by OSHA as known carcinogens. There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are listed by IARC as known, probable, or possible carcinogens. There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are classified by NTP as known carcinogens or as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. There may be hydrocarbon and chlorinated solvents; metals, and polynuclear aromatics present in this product which are recognized by ACGIH as confirmed or suspected human carcinogens.

Also see **SECTION 3: CANCER INFORMATION.**

**USED OIL
MATERIAL SAFETY DATA SHEET**

REPRODUCTIVE TOXICITY: Based on best current information, there may be reproductive toxicity associated with this product.

TERATOGENICITY: Based on best current information, there may be teratogenicity associated with this product.

TOXICOLOGICALLY SYNERGISTIC PRODUCT(S): Based on best current information, there may be toxicologically synergistic products associated with this product.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: Not available.

OCTANOL/WATER PARTITION COEFFICIENT: Not available.

VOLATILE ORGANIC COMPOUNDS: Not available.
As per 40 CFR Part 51.100(s).

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

DOT: Not regulated.

TDG: Not regulated.

EMERGENCY RESPONSE GUIDE NUMBER: Not applicable.
Reference *North American Emergency Response Guidebook*

SECTION 15: REGULATORY INFORMATION

USA REGULATIONS SARA SECTIONS 302 AND 304: Based on the ingredient(s) listed in **SECTION 2**, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

USED OIL MATERIAL SAFETY DATA SHEET

SARA SECTIONS 311 AND 312: This product poses the following physical and health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):
Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard

SARA SECTION 313: This product may contain "toxic" chemicals subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

CERCLA: This product may contain "hazardous substances" listed pursuant to Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

TSCA: Not available.

CALIFORNIA: This product is not for sale or use in the State of California.

CANADIAN REGULATIONS

WHMIS: Not regulated

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

Not available.

SECTION 16: OTHER INFORMATION

REVISION INFORMATION: Change from MSIS to MSDS.

LABEL/OTHER INFORMATION: Not available.

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the product as supplied to the user.



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Material Safety Data Sheet

Material Name: Quaker State Performance SAE 20W-50 Motor Oil

ID: QS-016

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*** Section 1 - Chemical Product and Company Identification ***

Product Numbers: 36410 (55 gallon); 36419 bulk

Chemical Name: Motor Oil

Manufacturer Information

Quaker State Corporation

225 E. John Carpenter Freeway

Irving, Texas 75062

Phone: (800)562-5928

Emergency # (800)424-9300 CHEMTREC

General Comments

CHEMTREC Emergency telephone number is to be used in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals. All non-emergency questions should be directed to customer service.

*** Section 2 - Composition / Information on Ingredients ***

CAS #	Component	Percent
Not Available	Lube Oil Additive with Ethylene and Propylene Copolymer	8-14
Not Available	Lube Oil Additive with Zinc Salt of Dialkyl Dithiophosphoric Acid, Borated Polyisobutenyl Succinic Anhydride Nitrogen Functionalized Dispersant, Magnesium Alkylaryl Detergent and Solvent Dewaxed Mineral Oil	7-10
Not Available	Lube Oil Additive with Dialkyl Fumarate and Vinyl Acetate Copolymer	0.5-3
64742-65-0	Petroleum Distillates, Solvent Dewaxed Heavy Paraffinic	Blend
64742-54-7	Petroleum Distillates, Hydrotreated Heavy Paraffinic	Blend

Component Information/Information on Non-Hazardous Components

The maximum percentage of the petroleum distillate and/or residual oil blend contained in this product is: 85%

All mineral oils used in this product have been severely hydrotreated and/or solvent refined. This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

*** Section 3 - Hazards Identification ***

Emergency Overview

This product is a viscous amber liquid. It will burn at elevated temperatures (above 420 deg F). Addition of water or foam to the fire may cause frothing. Use dry chemical or carbon dioxide for small fires, water spray or foam for large fires.

Hazard Statements

WARNING: Continuous contact with used motor oil has caused cancer in animal tests. Avoid prolonged contact. Wash skin with soap and water. Launder or discard soiled clothes.

Potential Health Effects: Eyes

This product may cause irritation to the eyes.

Potential Health Effects: Skin

Prolonged or repeated contact with skin may cause mild irritation and possibly dermatitis. Symptoms may include redness, edema, drying, defatting, and cracking of the skin.

Potential Health Effects: Ingestion

Low toxicity. Ingestion may cause stomach cramps and diarrhea. Pulmonary aspiration hazard if swallowed.

Potential Health Effects: Inhalation

Negligible hazard at room temperature (up to 95 degrees F). High temperatures or mechanical action may form mists or fumes. Inhalation of oil mists or fumes can cause irritation of the nose, throat and upper respiratory tract. If this product is heated over 70 C (155 F), hydrogen sulfide gas may be released. Hydrogen sulfide is irritating to the eyes and respiratory system. Continued overexposure may cause respiratory collapse, coma, and death without necessarily any warning odor being sensed.

HMIS Ratings: Health: 1 Fire: 1 Reactivity: 0 Pers. Prot.: gloves, glasses/face shield

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

Material Safety Data Sheet

Material Name: Quaker State Performance SAE 20W-50 Motor Oil

ID: QS-016

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Flush eyes with large amounts of water for 15 minutes. If eyes become inflamed, seek medical advice.

First Aid: Skin

Remove contaminated clothing. Wash affected area with mild soap and water. Launder contaminated clothing before reuse. If leather articles become saturated they should be discarded.

First Aid: Ingestion

Do not induce vomiting unless instructed to do so by a physician. Call your local poison control center or get medical attention.

First Aid: Inhalation

Remove to fresh air. If not breathing, give mouth to mouth resuscitation. If inhaled, immediately remove the affected person to fresh air. Call a physician.

First Aid: Notes to Physician

This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately.

*** Section 5 - Fire Fighting Measures ***

Flash Point: 400 F (204 C)

Upper Flammable Limit (UFL): Not determined

Auto Ignition: Not determined

Rate of Burning: Not determined

General Fire Hazards

This product is combustible at high temperatures.

Hazardous Combustion Products

Carbon dioxide, carbon monoxide, aldehydes, oxides of sulfur, calcium, nitrogen, magnesium, phosphorus and zinc, and other hydrocarbon fractions. Hydrogen sulfide and alkyl mercaptans and sulfides may also be released.

Extinguishing Media

Dry chemical or carbon dioxide for small fires. Water spray or foam for large fires.

Fire Fighting Equipment/Instructions

Wear full set of protective equipment including chemical goggles and gloves. Firefighters should wear full-face, self contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products. Do not point solid water stream directly into burning oil to avoid spreading.

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0 Other:

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

*** Section 6 - Accidental Release Measures ***

Containment Procedures

Eliminate all sources of ignition or flammables that may come into contact with a spill of this material. Stop the flow of material, if this is without risk.

Clean-Up Procedures

Wear appropriate protective equipment and clothing during clean-up. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. Scoop up used absorbent into drums or other appropriate container. Do not allow the spilled product to enter public drainage systems or open water courses. Surfaces may become slippery after spillage.

Evacuation Procedures

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Special Procedures

Remove soiled clothing and laundry before reuse. Avoid skin contact and inhalation of vapors during disposal of spills.

Material Safety Data Sheet

Material Name: Quaker State Performance SAE 20W-50 Motor Oil

ID: QS-016

*** Section 7 - Handling and Storage ***

Handling Procedures

Avoid getting this material into contact with your skin and eyes. Avoid breathing fumes if this product is used at high temperatures. Avoid the generation of oil mists. Wash hands after handling and before eating. Launder work clothes frequently.

Storage Procedures

Keep the container tightly closed and in a cool, well-ventilated place. Do not store this material in open or unlabeled containers. Store away from strong oxidizers. Empty containers may retain product residue including flammable or explosive vapors. Do not cut, drill, grind, or weld near full, partially full, or empty product containers.

*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines

A: General Product Information

If oil mists are generated, observe the OSHA exposure limit of 5 mg/m³. The following are recommended exposure limits for hydrogen sulfide: OSHA PEL 8H TWA 10 ppm (14 mg/m³), Ceiling 20 ppm and ACGIH 8H TWA 10 ppm (14 mg/m³). Protect from skin and eye contact.

B: Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Engineering Controls

Use general ventilation. Use in a well-ventilated area. If product is heated above 70 C (155 C), hydrogen sulfide vapors may be released. Ventilation should be sufficient to keep hydrogen sulfide levels below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses; chemical goggles (if splashing is possible).

Personal Protective Equipment: Skin

Use impervious gloves for prolonged contact or any contact with used oil. The use of neoprene gloves is recommended.

Personal Protective Equipment: Respiratory

Normally not necessary. If mist is generated (heating, spraying) and engineering controls are not sufficient, wear approved organic vapor respirator suitable for oil mist.

Personal Protective Equipment: General

Use good hygiene when handling petroleum product.

*** Section 9 - Physical & Chemical Properties ***

Appearance: Amber to Dark Amber
Physical State: Liquid
Vapor Pressure: Negligible
Boiling Point: Not determined
Solubility (H₂O): Negligible in water
Freezing Point: Not determined

Odor: Mild hydrocarbon
pH: Not available
Vapor Density: Not determined
Melting Point: Not determined
Specific Gravity: 0.88-0.90 @ 60 F
Viscosity: 160-187 cSt @ 40 C; 19.0-19.5 cSt @ 100 C

Percent Volatile: Negligible

Physical Properties: Additional Information

Pour Point: -15 F; -26 C

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable

Chemical Stability: Conditions to Avoid

Avoid excessive heat and all sources of ignition.

Incompatibility

Oxidizing agents, acids, halogens and halogenated compounds.

Material Safety Data Sheet

Material Name: Quaker State Performance SAE 20W-50 Motor Oil

ID: QS-016

Hazardous Decomposition

At thermal decomposition temperatures carbon dioxide, carbon monoxide, fumes, smoke, aldehydes, oxides of sulfur, sodium, calcium, nitrogen, magnesium, phosphorous, and zinc, and various hydrocarbons. Hydrogen sulfide and alkyl mercaptans and sulfides may also be released.

Hazardous Polymerization

Hazardous polymerization will not occur.

*** Section 11 - Toxicological Information ***

Acute Toxicity

A: General Product Information

Based on similar products the LD50 is expected to be greater than 5,000 mg/kg. Product has the ability to cause oil acne on the skin and fibrosis in the lung.

B: Component Analysis - LD50/LC50

Petroleum Distillates, Hydrotreated Heavy Paraffinic (64742-54-7)

RTECS: PY8035500

Oral LD50 Rat: >15 gm/kg

Dermal LD50 Rabbit: >5 gm/kg

RTECS: PY8035501

Oral LD50 Rat: >15 gm/kg

Dermal LD50 Rabbit: >5 gm/kg

Carcinogenicity

A: General Product Information

No data available on the product as a whole. Note that USED oils tend to contain higher amounts of the cancer-causing aromatics, which have been linked to scrotal and lung cancer in humans.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Epidemiology

No data available for product.

Neurotoxicity

No data available on this product as a whole.

Mutagenicity

No data available on this product as a whole.

Teratogenicity

Review of information on components indicates no components at greater than 1.0% have teratogenic effects.

Other Toxicological Information

Persons with skin or respiratory conditions may be more sensitive to product. This product contains a blend of petroleum distillates and residual oils, all of which have been solvent refined or severely hydrotreated. The petroleum distillate and residual oil blend consists of one or more of the components identified by CAS Number in Section 2. Since these components vary with the availability of materials their presence is noted as "blend".

*** Section 12 - Ecological Information ***

Ecotoxicity

No information is available on ecotoxicity of this product. Keep product out of sewers and waterways.

Environmental Fate

No information is available.

*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

A: General Product Information

Product as shipped does not meet the definition or characteristics of a hazardous waste. User must test waste using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Material Safety Data Sheet

Material Name: Quaker State Performance SAE 20W-50 Motor Oil

ID: QS-016

Disposal Instructions

Used oil can be returned to a collection center or provided to a licensed recycler. All wastes must be handled in accordance with local, state and federal regulations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Not regulated as a hazardous material

Hazard Class: None

UN/NA #: None

Packing Group: None

International Transportation Regulations

Not regulated as dangerous goods.

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

This product may be classified as an oil under Section 311 of the Clean Water Act, and under the Oil Pollution Act. Discharges of spills into or leading to surface waters that cause sheen must be reported to the National Response Center. (1-800-424-8802) All components of this product are listed on the U.S. EPA TSCA Inventory.

B: Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations

A: General Product Information

No components require labeling under California Proposition 65.

B: Component Analysis - State

None of this product's components are listed on the state lists from CA, FL, MA, MN, NJ, or PA.

Other Regulations

A: General Product Information

This product is not considered a controlled product under the Canadian Controlled Products Act.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Petroleum Distillates, Solvent Dewaxed Heavy Paraffinic	64742-65-0	Yes	Yes	Yes
Petroleum Distillates, Hydrotreated Heavy Paraffinic	64742-54-7	Yes	Yes	Yes

C: Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

*** Section 16 - Other Information ***

Other Information

This information is, to the best of Quaker State Corporation's knowledge and belief, accurate and reliable. However, no representation, warranty, or guarantee is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

Key/Legend

N = No; Y = Yes; ppm - parts per million; mg/m³ = milligrams per cubic meter of air; ACGIH = American Conference of Governmental Industrial Hygienists; OSHA = Occupational Safety and Health Administration; TLV = Threshold Limit Value; NIOSH = National Institute of Occupational Safety and Health; NTP = National Toxicology Program; IARC = International Agency for Research on Cancer.

Material Safety Data Sheet

Material Name: Quaker State Performance SAE 20W-50 Motor Oil

ID: QS-016

MSDS History

Preparation Information: last revised 02/07/1997. Revision 2.0000: 11/19/1997.

Revision 2.0000: Section 2 was revised to indicate that the product contains a "blend" of petroleum distillates and/or residual oils. Section 11 revised to the nature of the product blend.

Revision (06/05/98): Text correction.

Contact: Vince Bernard, Corporate Safety Director

Contact Phone: (800) 562-5928

This is the end of MSDS # QS-016

Safety Data Sheet

Section 1: Identification of the substance or mixture and of the supplier

Product Name: No. 2 Biodiesel Blend

SDS Number: 778689

Synonyms/Other Means of Identification:
 No. 2 B2
 No. 2 B5
 No. 2 B20
 No. 2 Biodiesel Blend - Dyed (B2, B5, B20)
 No. 2 Biodiesel Blend - Winter (B2, B5, B20)

MARPOL Annex I Category: Gas Oils, Including Ship's Bunkers

Intended Use: Fuel

Manufacturer: ConocoPhillips
 600 N. Dairy Ashford
 Houston, Texas 77079-1175

Emergency Health and Safety Number: Chemtrec: 800-424-9300 (24 Hours)

Customer Service: 800-527-5476

Technical Information: 800-527-5476

DS Information: Phone: 800-762-0942
 Email: MSDS@conocophillips.com
 www.conocophillips.com

Section 2: Hazard(s) Identification

DANGER

- Flammable liquid and vapor. (H226)*
- Causes skin irritation. (H315)*
- Harmful if inhaled. (H332)*
- May be fatal if swallowed and enters airways. (H304)*
- May cause damage to organs through prolonged or repeated exposure. (H373)*
- Suspected of causing cancer. (H351)*
- Toxic to aquatic life with long lasting effects. (H411)*



Precautionary Statement(s):

- Obtain special instructions before use. (P201)*
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking. (P210)*
- Do not breathe vapors or mists. (P260)*
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. (P301+P310)*
- Do NOT induce vomiting. (P331)*
- Dispose of contents/container to approved disposal facility. (P501)*

* (Applicable GHS hazard/precautionary code.)

Section 3: Composition / Information on Ingredients

Component	CASRN	Concentration ¹
Biodiesel Fuel No. 2	68476-34-6	80-98.5

Section 3: Composition / Information on Ingredients

100 Biodiesel		
Naphthalene	67784-80-9	1.5-20
	91-20-3	<1

Total Sulfur: < 0.1 wt%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Section 4: First Aid Measures

Eye Contact: If irritation or redness develops from exposure, flush eyes with clean water. If symptoms persist, seek medical attention.

Skin Contact: Remove contaminated shoes and clothing, and flush affected area(s) with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops, seek medical attention. Wash contaminated clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician. (see Note to Physician)

Inhalation (Breathing): If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air in a position comfortable for breathing. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

Ingestion (Swallowing): Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing. Seek medical attention.

Notes to Physician: When using high-pressure equipment, injection of product under the skin can occur. In this case, the casualty should be sent immediately to hospital. Do not wait for symptoms to develop. High-pressure hydrocarbon injection injuries may produce substantial necrosis of underlying tissue despite an innocuous appearing external wound. These injuries often require extensive emergency surgical debridement and all injuries should be evaluated by a specialist in order to assess the extent of injury. Early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

Medical Conditions Aggravated by Exposure: Conditions which may be aggravated by exposure include skin disorders, blood disorders, liver disorders and immune system disorders.

Section 5: Fire-Fighting Measures**NFPA 704 Hazard Class**

Health: 1 Flammability: 2 Instability: 0 (0-Minimal, 1-Slight, 2-Moderate, 3-Serious, 4-Severe)

Unusual Fire & Explosion Hazards: Flammable. This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe). Vapors may travel considerable distances to a source of ignition where they can ignite, flash back, or explode. May create vapor/air explosion hazard indoors, in confined spaces, outdoors, or in sewers. This product will float and can be reignited on surface water. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can rupture in the heat of a fire.

Extinguishing Media: Dry chemical, carbon dioxide, or foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters.

Fire Fighting Instructions: For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done safely. Avoid spreading burning liquid with water used for cooling purposes.

Hazardous Combustion Products: Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of nitrogen and sulfur may also be formed.

See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits

Section 6: Accidental Release Measures

Personal Precautions: Flammable. Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep all sources of ignition and hot metal surfaces away from spill/release if safe to do so. The use of explosion-proof electrical equipment is recommended. Stay upwind and away from spill/release. Avoid direct contact with material. For large spillages, notify persons downwind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

Environmental Precautions: Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Use foam on spills to minimize vapors. Use water sparingly to minimize environmental contamination and reduce disposal requirements. If spill occurs on water notify appropriate authorities and advise shipping of any hazard. Spills into or upon navigable waters, the contiguous zone, or adjoining shorelines that cause a sheen or discoloration on the surface of the water, may require notification of the National Response Center (phone number 800-424-8802).

Methods for Containment and Clean-Up: Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal. If spilled on water remove with appropriate methods (e.g. skimming, booms or absorbents). In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

Recommended measures are based on the most likely spillage scenarios for this material; however local conditions and regulations may influence or limit the choice of appropriate actions to be taken.

Section 7: Handling and Storage

Precautions for safe handling: Keep away from ignition sources such as heat/sparks/open flame – No smoking. Take precautionary measures against static discharge. Nonsparking tools should be used. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors or mists. Use only outdoors or in well-ventilated area. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment.

Flammable. May vaporize easily at ambient temperatures. The vapor is heavier than air and may create an explosive mixture of vapor and air. Beware of accumulation in confined spaces and low lying areas. Open container slowly to relieve any pressure. Electrostatic charge may accumulate and create a hazardous condition when handling or processing this material. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-70 and/or API RP 2003 for specific bonding/grounding requirements. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames.

High pressure injection of hydrocarbon fuels, hydraulic oils or greases under the skin may have serious consequences even though no symptoms or injury may be apparent. This can happen accidentally when using high pressure equipment such as high pressure grease guns, fuel injection apparatus or from pinhole leaks in tubing of high pressure hydraulic oil equipment.

For use as a motor fuel only. Do not use as a solvent due to its flammable and potentially toxic properties. Siphoning by mouth can result in lung aspiration which can be harmful or fatal.

The use of hydrocarbon fuel in an area without adequate ventilation may result in hazardous levels of incomplete combustion products (e.g. carbon monoxide, oxides of sulfur and nitrogen, benzene and other hydrocarbons) and/or dangerously low oxygen levels.

Diesel engine exhaust contains hazardous combustion products and has been classified as a probable cancer hazard in humans.

Conditions for safe storage: Keep container(s) tightly closed and properly labeled. Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Store only in approved containers. Post area "No Smoking or Open Flame." Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

Section 8: Exposure Controls / Personal Protection

Component	ACGIH	OSHA	Other
Diesel Fuel No. 2	TWA: 100 mg/m ³ Skin	---	---
Naphthalene	STEL: 15 ppm TWA: 10 ppm Skin	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 0.2 mg/m ³ (as total of 17 PNA's measured by NIOSH Method 5506) (ConocoPhillips Guidelines)

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

Eye/Face Protection: The use of eye protection that meets or exceeds ANSI Z.87.1 is recommended to protect against potential eye contact, irritation, or injury. Depending on conditions of use, a face shield may be necessary.

Skin/Hand Protection: The use of gloves impervious to the specific material handled is advised to prevent skin contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Depending on exposure and use conditions, additional protection may be necessary to prevent skin contact including use of items such as chemical resistant boots, aprons, arm covers, hoods, coveralls, or encapsulated suits. Suggested protective materials: Nitrile

Respiratory Protection: Where there is potential for airborne exposure above the exposure limit a NIOSH certified air purifying respirator equipped with organic vapor cartridges/canisters may be used.

A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use. Air purifying respirators provide limited protection and cannot be used in atmospheres that exceed the maximum use concentration (as directed by regulation or the manufacturer's instructions), in oxygen deficient (less than 19.5 percent oxygen) situations, or under conditions that are immediately dangerous to life and health (IDLH).

Other Protective Equipment: Eye wash and quick-drench shower facilities should be available in the work area. Thoroughly clean shoes and wash contaminated clothing before reuse.

Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.

Section 9: Physical and Chemical Properties

Note: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm). Data represent typical values and are not intended to be specifications.

Appearance:	Straw colored to dyed red
Physical Form:	Liquid
Odor:	Diesel fuel
Odor Threshold:	No data
pH:	Not applicable
Vapor Pressure:	<1 mm Hg
Vapor Density (air=1):	>1
Initial Boiling Point/Range:	300-690°F / 149-366°C
Melting/Freezing Point:	No data
Solubility in Water:	Negligible
Partition Coefficient (n-octanol/water) (Kow):	No data
Specific Gravity (water=1):	0.81-0.88 @ 60°F (15.6°C)
Bulk Density:	6.9 - 7.4 lbs/gal
Viscosity:	1.9 - 4.1 cSt @ 40°C
Percent Volatile:	Negligible
Evaporation Rate (nBuAc=1):	No data
Flash Point:	125 - 180°F / 52 - 82°C
Test Method:	Pensky-Martens Closed Cup (PMCC), ASTM D93, EPA 1010
Lower Explosive Limits (vol % in air):	0.3
Upper Explosive Limits (vol % in air):	10.0

Auto-ignition Temperature: 1131°F / 611°C

Section 10: Stability and Reactivity

Stability: Stable under normal ambient and anticipated conditions of use.

Conditions to Avoid: Avoid high temperatures and all sources of ignition. Prevent vapor accumulation.

Materials to Avoid (Incompatible Materials): Avoid contact with strong oxidizing agents and strong reducing agents.

Hazardous Decomposition Products: Not anticipated under normal conditions of use.

Hazardous Polymerization: Not known to occur.

Section 11: Toxicological Information

Information on Toxicological Effects of Substance/Mixture

<u>Acute Toxicity</u>	<u>Hazard</u>	<u>Additional Information</u>	<u>LC50/LD50 Data</u>
Inhalation	Harmful if inhaled		> 4.65 mg/L (mist)
Skin Absorption	Unlikely to be harmful		> 4.1 g/kg
Ingestion (Swallowing)	Unlikely to be harmful		> 5 g/kg

Aspiration Hazard: May be fatal if swallowed and enters airways.

Skin Corrosion/Irritation: Causes skin irritation. Repeated exposure may cause skin dryness or cracking.

Serious Eye Damage/Irritation: Causes mild eye irritation.

Signs and Symptoms: While significant vapor concentrations are not likely, high concentrations can cause minor respiratory irritation, headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Ingestion can cause irritation of the digestive tract, nausea, diarrhea, and vomiting.

Skin Sensitization: Not expected to be a skin sensitizer.

Respiratory Sensitization: Not expected to be a respiratory sensitizer.

Specific Target Organ Toxicity (Single Exposure): Not expected to cause organ effects from single exposure.

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure. Dermal application of a distillate fuel component at doses > 125 mg/kg, 5 d/wk, for 13 weeks resulted in decreased liver, thymus, and spleen weights, and altered bone marrow function. Microscopic alterations included liver hypertrophy and necrosis, decreased hematopoiesis and lymphocyte depletion.

Carcinogenicity: Suspected of causing cancer. Petroleum middle distillates have been shown to cause skin tumors in mice following repeated and prolonged skin contact. Follow-up studies have shown that these tumors are produced through a non-genotoxic mechanism associated with frequent cell damage and repair, and that they are not likely to cause tumors in the absence of prolonged skin irritation. Middle distillates with low polynuclear aromatic hydrocarbon content have not been identified as a carcinogen by IARC.

Germ Cell Mutagenicity: No information available.

Reproductive Toxicity: No information available.

Information on Toxicological Effects of Components

Naphthalene

Carcinogenicity: Naphthalene has been evaluated in two year inhalation studies in both rats and mice. The US National Toxicology Program (NTP) concluded that there is clear evidence of carcinogenicity in male and female rats based on increased incidences of respiratory epithelial adenomas and olfactory epithelial neuroblastomas of the nose. NTP found some evidence of carcinogenicity in female mice (alveolar adenomas) and no evidence of carcinogenicity in male mice. Naphthalene has been identified as a carcinogen by IARC and NTP.

Section 12: Ecological Information

Section 12: Ecological Information

Toxicity: Experimental studies of gas oils show that acute aquatic toxicity values are typically in the range 2-20 mg/L. These values are consistent with the predicted aquatic toxicity of these substances based on their hydrocarbon compositions. They should be regarded as toxic to aquatic organisms, with the potential to cause long term adverse effects in the aquatic environment. Classification: H411; Chronic Cat 2.

Persistence and Degradability: Gas oils are complex combinations of individual hydrocarbon species. Based on the known or expected properties of individual constituents, category members are not predicted to be readily biodegradable. Some hydrocarbon constituents of gas oils are predicted to meet the criteria for persistence; on the other hand, some components can be easily degraded by microorganisms under aerobic conditions.

Persistence per IOPC Fund definition: Non-Persistent

Bioaccumulative Potential: Gas oil components have measured or calculated Log Kow values in the range of 3.9 to 6 which indicates a high potential to bioaccumulate. Lower molecular weight compounds are readily metabolized and the actual bioaccumulation potential of higher molecular weight compounds is limited by the low water solubility and large molecular size.

Mobility in Soil: Releases to water will result in a hydrocarbon film floating and spreading on the surface. For the lighter components, volatilization is an important loss process and reduces the hazard to aquatic organisms. In air, the hydrocarbon vapors react readily with hydroxyl radicals with half-lives of less than one day. Photooxidation on the water surface is also a significant loss process particularly for polycyclic aromatic compounds. In water, the majority of components will be adsorbed on sediment. Adsorption is the most predominant physical process on release to soil. Adsorbed hydrocarbons will slowly degrade in both water and soil.

Other Adverse Effects: None anticipated.

Section 13: Disposal Considerations

The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

This material, if discarded as produced, would not be a federally regulated RCRA "listed" hazardous waste. However, it would likely be identified as a federally regulated RCRA hazardous waste for the following characteristic(s) shown below. See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties. It is possible that the material as produced contains constituents which are not required to be listed in the MSDS but could affect the hazardous waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

Container contents should be completely used and containers should be emptied prior to discard. Container residues and rinseates could be considered to be hazardous wastes.

EPA Waste Number(s)

- D001 - Ignitability characteristic

Section 14: Transport Information

U.S. Department of Transportation (DOT)

Shipping Description:

Aquatic toxicity studies indicate material may be classified as a Marine Pollutant. This classification impacts bulk and water shipments.

NA1993, Diesel fuel, Combustible liquid, III

Not Regulated [49 CFR 173.150(f)(2)]

Not Regulated [49 CFR 173.150(f)(2)]

Combustible / 1993

None; None; 49 CFR 173.241

(Exceptions; Non-bulk; Bulk)

128

May also be shipped as: Diesel fuel, Combustible liquid, UN1202, III

Bulk Package/Placard Marking would also be changed to: 1202

Container(s) greater than 5 liters (liquids) or 5 kilograms (solids), shipped by water

mode and ALL bulk shipments may require the shipping description to contain the

"Marine Pollutant" notation [49 CFR 172.203(l)] and the container(s) to display the

[Marine Pollutant Mark] [49 CFR 172.322].

The following alternate shipping description order may be used until January 1, 2013:

Proper Shipping name, Hazard Class or Division, (Subsidiary Hazard if any), UN or NA

number, Packing Group

Other shipping description elements may be required for DOT compliance.

Non-Bulk Package Marking:

Non-Bulk Package Labeling:

Bulk Package/Placard Marking:

Packaging - References:

Emergency Response Guide:

Note:

Section 14: Transport Information

International Maritime Dangerous Goods (IMDG)

Shipping Description: *If flashpoint is >60° C closed-cup and the material meets the IMDG definition of a Marine Pollutant, an alternate shipping name such as "Environmentally hazardous substance, n.o.s." with hazard class 9 and PG III must be used.*
 UN1202, Diesel fuel, 3, III, (FP° C cc), [where FP is the material's flash point in degrees Celsius closed cup]

Non-Bulk Package Marking: Diesel fuel, UN1202

Labels: Flammable liquid

Placards/Marking (Bulk): Flammable / 1202

Packaging - Non-Bulk: P001, LP01

EMS: F-E, S-E

Note: *Proper Shipping name can be: Gas Oil or Diesel fuel or Heating Oil, light*
If transported in bulk by marine vessel in international waters, product is being carried under the scope of MARPOL Annex I.
If container(s) is greater than 5 liters (liquids) or 5 kilograms (solids), shipment may require the shipping description to contain the "Marine Pollutant" description [IMDG 5.4.1.4.3.5] and the container(s) to display the Marine Pollutant mark [IMDG 5.2.1.6].

International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)

UN/ID #: *Not regulated if flashpoint is >60° C closed-cup*
 UN1202

Proper Shipping Name: Diesel fuel

Hazard Class/Division: 3

Packing Group: III

Non-Bulk Package Marking: Diesel fuel, UN1202

Labels: Flammable liquid

ERG Code: 3L

note: *If container(s) is greater than 5 liters (liquids) or 5 kilograms (solids), shipment may require the container to display the "Environmentally hazardous substance" mark [IATA 7.1.6.3].*

	LTD. QTY	Passenger Aircraft	Cargo Aircraft Only
Packaging Instruction #:	Y309	309	310
Max. Net Qty. Per Package:	10 L	60 L	220 L
Packaging Instruction # after 12/31/2010:	Y344	355	366

Section 15: Regulatory Information

CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds):

This material does not contain any chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372.

CERCLA/SARA - Section 311/312 (Title III Hazard Categories)

Acute Health:	Yes
Chronic Health:	Yes
Fire Hazard:	Yes
Pressure Hazard:	No
Reactive Hazard:	No

CERCLA/SARA - Section 313 and 40 CFR 372:

This material contains the following chemicals subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR 372:

Component	Concentration ¹	de minimis
Naphthalene	<1	0.1%

PA (CERCLA) Reportable Quantity (in pounds):

A's Petroleum Exclusion applies to this material - (CERCLA 101(14)).

California Proposition 65:

Warning: This material may contain detectable quantities of the following chemicals, known to the State of California to cause cancer, birth defects or other reproductive harm, and which may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

Component	Type of Toxicity
Naphthalene	Cancer

International Hazard Classification

GHS Classification:

- H226 -- Flammable liquids -- Category 3
- H315 -- Skin corrosion/irritation -- Category 2
- H304 -- Aspiration Hazard -- Category 1
- H332 -- Acute toxicity, Inhalation -- Category 4
- H373 -- Specific target organ toxicity (repeated exposure) -- Category 2
- H351 -- Carcinogenicity -- Category 2
- H411 -- Hazardous to the aquatic environment, chronic toxicity -- Category 2

Canada:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the Regulations.

WHMIS Hazard Class

- B3 - Combustible Liquids
- D1B
- D2A
- D2B

National Chemical Inventories:

All components are either listed on the US TSCA Inventory, or are not regulated under TSCA.

All components are either on the DSL, or are exempt from DSL listing requirements.

U.S. Export Control Classification Number: EAR99

Section 16: Other Information

Date of Issue:	21-Dec-2010
Status:	FINAL
Previous Issue Date:	20-Jul-2010
Revised Sections or Basis for Revision:	Format change MARPOL information (Sections 1, 3 and 12)
SDS Number:	778689

Guide to Abbreviations:

ACGIH = American Conference of Governmental Industrial Hygienists; CASRN = Chemical Abstracts Service Registry Number; CEILING = Ceiling Limit (15 minutes); CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act; EPA = Environmental Protection Agency; GHS = Globally Harmonized System; IARC = International Agency for Research on Cancer; IOPC = International Oil Pollution Compensation; LEL = Lower Explosive Limit; NE = Not Established; NFPA = National Fire Protection Association; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit (OSHA); SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit (15 minutes); TLV = Threshold Limit Value (ACGIH); TWA = Time Weighted Average (8 hours); UEL = Upper Explosive Limit; WHMIS = Worker Hazardous Materials Information System (Canada)

Disclaimer of Expressed and Implied Warranties:

The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.



CITY OF GARDEN GROVE
11301 ACACIA PARKWAY
GARDEN GROVE, CALIFORNIA 92842
(714) 741-5636

CUPA

FACILITY INFORMATION

BUSINESS ACTIVITIES

Page 13 of 13

FACILITY IDENTIFICATION

FACILITY ID# 3 0 0 3 5 1. EPA ID # (Hazardous Waste Only) 2.
CAL000331976

BUSINESS NAME (Same as FACILITY NAME or DBA-Doing Business As) 3.
ISUZU MANUFACTURING Services of AMERICA (IMSA)

ACTIVITIES DECLARATION

NOTE: If you check YES to any part of this list, please submit the Business Owner/Operator Identification page.

Does your facility...	If Yes, please complete these pages of the UPCF...	
A. HAZARDOUS MATERIALS Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	4. <input checked="" type="checkbox"/> HAZARDOUS MATERIALS INVENTORY - CHEMICAL DESCRIPTION (Form 3)
B. UNDERGROUND STORAGE TANKS (USTs) 1. Own or operate underground storage tanks? 2. Intent to upgrade existing or install new USTs? 3. Need to report closing a UST?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	5. <input checked="" type="checkbox"/> UST FACILITY (Formerly SWRCB Form A) <input checked="" type="checkbox"/> UST TANK (one page per tank) (Formerly Form B) 6. <input checked="" type="checkbox"/> UST FACILITY <input checked="" type="checkbox"/> UST TANK (one per tank) <input checked="" type="checkbox"/> UST INSTALLATION - CERTIFICATE OF COMPLIANCE (one page per tank) (Formerly Form C) 7. <input checked="" type="checkbox"/> UST TANK (closure portion-one page per tank)
C. ABOVE GROUND PETROLEUM STORAGE TANKS (ASTs) Own or operate ASTs above these thresholds: - any tank capacity is greater than 660 gallons, or - the total aggregate capacity for the entire facility (ASTs, drums and portable containers) greater than 1,320 gallons?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	8. <input checked="" type="checkbox"/> NO FORM REQUIRED TO CUPAS
D. HAZARDOUS WASTE 1. Generate hazardous waste? 2. Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC §25143.2)? 3. Treat hazardous waste on site? 4. Treatment subject to financial assurance requirements (for Permit by Rule and Condition Authorization)? 5. Consolidate hazardous waste generated at a remove site? 6. Need to report the closure/removal of a tank that was classified waste and cleaned onsite?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	9. <input checked="" type="checkbox"/> EPA ID NUMBER - provide at the top of this page 10. <input checked="" type="checkbox"/> RECYCLABLE MATERIALS REPORT (one per recycler) 11. <input checked="" type="checkbox"/> ONSITE HAZARDOUS WASTE TREATMENT - FACILITY (Formerly DTSC Forms 1772) <input checked="" type="checkbox"/> ONSITE HAZARDOUS WASTE TREATMENT - UNIT (one page per unit) (Formerly DTSC Forms 1772A,B,C,D and L) 12. <input checked="" type="checkbox"/> CERTIFICATION OF FINANCIAL ASSURANCE (Formerly DTSC Form 1232) 13. <input checked="" type="checkbox"/> REMOTE WASTE/CONSOLIDATION SITE ANNUAL NOTIFICATION (Formerly DTSC Form 1196) 14. <input checked="" type="checkbox"/> HAZARDOUS WASTE TANK CLOSURE CERTIFICATION (Formerly DTSC Form 1249)
F. LOCAL REQUIREMENTS --- ARP: California Accidental Release Prevention Program H&SC Chapter 6.95, Article 2, §25531 et seq --- Stationary Source with more than a Threshold Quantity of a Regulated Substance in a Process	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	15. <input checked="" type="checkbox"/> REGULATED SUBSTANCE REPORTING FORM (Orange County CUPA)

**GARDEN GROVE FIRE DEPARTMENT
HAZARDOUS MATERIALS DISCLOSURE PROGRAM**

BUSINESS EMERGENCY PLAN

Personnel Emergency Notifications and Responsibilities

Employee Evacuation and Staging Areas:

1. The type of alarm signal that will be used to initiate an evacuation at the facility (vocal, paging system, manual alarm, etc.).

VOCAL, OR FOR FIRE HORN & STROBES

2. All employees shall be trained to evacuate the facility through at least one exit. Alternate exit routes shall be designated if available.
3. Staging areas shall be designated for all employees. Staging areas will be the location that all employees shall report to in the event of an emergency.

One person shall be designated to account for all personnel at the staging area. That person will be responsible for meeting the incoming Fire units and reporting the conditions known about the incident.

The Staging area is at the following location as shown on your site plan map:

Yellow circle, front of Building near Loading Dock

Employee Responsibilities:

At least one employee shall be responsible for the following minimum requirements in the event of an emergency response by the Fire Department.

1. Notify employees. Initiate evacuation procedures.
2. Notify the Garden Grove Fire Department. Dial 911.
3. Try to identify the nature of the incident.
4. Report to the staging area and account for evacuated employees.
5. Report to the incoming fire units.
6. Activate any emergency mitigation procedures that area available at your business. (List below any mitigation procedures specific to your business, if any.)

LAB AREA go to outside Loading AREA on EDISON WAY
Office AREA go to outside LOADING AREA on EDISON WAY

**GARDEN GROVE FIRE DEPARTMENT
HAZARDOUS MATERIALS DISCLOSURE PROGRAM**

BUSINESS EMERGENCY PLAN

Personnel Emergency Notifications and Responsibilities (Continued)

Training Requirements

State law requires training of employees where the business uses, handles or stores hazardous materials.

Employee training provided on:

- Appointment of person/persons on site who are trained in key role positions. Emergency coordinator, evacuation coordinators, staging area supervisors and documenting officers.
- Procedures to follow during a release or threatened release of a hazardous material (evacuation to staging areas).
- Information contained in material safety data sheets.
- Warning labels/placards.
- Safe work practices.
- Use of on-site emergency equipment and supplies.
- Use and location of personal protective equipment.
- Any chemical, hazardous material or substance that could be encountered in his/her work area.
- On site alarm system for evacuation.
- Discuss possible release of hazardous materials scenario.

Emergency Notifications

A handler of hazardous materials is required to immediately report any release or threatened release of hazardous materials to the Garden Grove Fire Department. Failure to do so may result in criminal and/or civil prosecution.

Required Notifications

In the event of a release or threatened release of hazardous materials, it is State law to notify each of the following agencies.

<u>Agency</u>	<u>Phone Numbers</u>
Garden Grove Fire Department, Police, Paramedics Office of Emergency Services (OES)	911 (800) 852-7550 or (916) 427-4341
National Response Center	(800) 424-8802

**GARDEN GROVE FIRE DEPARTMENT
HAZARDOUS MATERIALS DISCLOSURE PROGRAM**

BUSINESS EMERGENCY PLAN

Personnel Emergency Notifications and Responsibilities (Continued)

Prevention

All materials are stored, used and handled within the guidelines of the Uniform Fire Code, N.F.P.A. standards, California Administrative Code, Titles 19 and 20.

This section is meant to initiate a Prevention Plan at your business and to assist in preventing a release, or threatened release, of a hazardous material. In the spaces provided, place a checkmark by the preventive actions which have been initiated by your business to abate hazards relating to hazardous material handling, use of storage.

Consideration shall include:

- 1. Drum storage and/or above ground tank storage areas:
 - a. Isolation and separation of incompatible materials.
 - b. Diking areas to contain spills.
 - c. Storage on paved ground.

- 2. Compressed and/or cryogenic gas storage areas:
 - a. Cylinder stored upright and secured.
 - b. Isolation and/or separation of incompatible cylinders (oxygen and flammable gases, etc.).

- 3. General:
 - a. Safe work practices are exercised in daily routines.
 - b. Employees who handle hazardous materials are properly trained.
 - c. Material Safety Data Sheets (MSDS) readily available for each hazardous material on the premises.
 - d. Labeling of all materials and storage areas with the product name and hazards associated with the product (drums, piping, tanks, etc.).
 - e. Uniform Fire Code (UFC) requires separation between outside hazardous material storage area or tanks and combustible materials (wood, bush, etc.).
 - f. Posting of "No Smoking" signs where appropriate.

GARDEN GROVE FIRE DEPARTMENT

BUSINESS EMERGENCY PLAN

A BUSINESS IS REQUIRED BY LAW TO NOTIFY THE GARDEN GROVE FIRE DEPARTMENT WITHIN 30 DAYS OF ANY OF THE FOLLOWING EVENTS.

1. Change of business address.
2. Change of business ownership.
3. Change of business name.
4. Cessation of business operation (quitting business).
5. Use or handling of a previously undisclosed hazardous material.
6. A 100% increase in the quantity of a previously disclosed hazardous material.

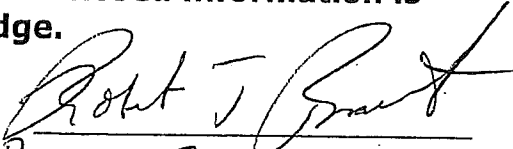
Your business is required by State law (CFC 8001.3.2) to retain a copy of this entire Hazardous Materials Disclosure information, including the Business Plan, chemical inventory, material safety data sheets and site maps, for review by Fire Department personnel. State where your disclosure and Emergency Business Plan will be kept.

IN LAB AREA BY Lunch Room Door

Show location on site map also using symbol in the legend.

Note: A fee is charged for a replacement copy from the Garden Grove Fire Department.

I certify, under penalty of perjury, that the enclosed information is true and correct to the best of my knowledge.

Signature: 
 Name: ROBERT J BRANCATO
 Title: LAB MANAGER
 Date: 6-7-2011



CITY OF GARDEN GROVE FIRE DEPARTMENT

11301 Acacia Parkway, Garden Grove, CA 92842 (714) 741-5600 (714) 741-5636

FORM 1

Hazardous Materials Business Information Form

Page of 3

BUSINESS INFORMATION

FACILITY # (Supplied by GGFD)	3 0 0 3 5	BEGINNING DATE	1 11-14-06	ENDING DATE	2 12-31-06
BUSINESS NAME	Primal Elements			BUSINESS PHONE	5 714-899-0757
BUSINESS SITE ADDRESS	12472 Edison Way				
CITY	7 GARDEN GROVE	STATE	8 CA	ZIP	9 92841
DUN & BRADSTREET	10	SIC CODE (4 DIGIT #)	11 2841	FIRE DISTRICT	12 2314
COUNTY	13 ORANGE				
BUSINESS OPERATOR NAME	14 Curtis Allen			OPERATOR'S PHONE	15 714-899-0757 Ext 261

BUSINESS OWNER

OWNER NAME	16 Scott Freeman	OWNER PHONE	17 714-899-0757
OWNER MAILING ADDRESS	18 Same as above (12472 Edison Way)		
CITY	19 Garden Grove	STATE	20 CA
		ZIP	21 92841

ENVIRONMENTAL CONTACT

CONTACT NAME	22 Curtis Allen	CONTACT PHONE	23 714-899-0757
CONTACT MAILING ADDRESS	24 12472 Edison Way		
CITY	25 Garden Grove	STATE	26 CA
		ZIP	27 92841

PRIMARY

EMERGENCY CONTACTS

SECONDARY

NAME	28 Curtis Allen	NAME	33 Richard Stark
TITLE	29 Director of Operations	TITLE	34 Vice President
BUSINESS PHONE	30 714-899-0757 Ext 261	BUSINESS PHONE	35 714-899-0757 ext 208
24-HR. PHO	31 [REDACTED]	24-HR. PHO	36 [REDACTED]
PAGER #	32 [REDACTED]	PAGER #	37 [REDACTED]

ADDITIONAL LOCALLY COLLECTED INFORMATION

DESCRIBE THE TYPE OF BUSINESS OPERATION:	38 Bath & Beauty Products / Candles / Soap	TOTAL # OF EMPLOYEES	39 100
BILLING ADDRESS (IF DIFFERENT FROM ABOVE)	40	ATTENTION	41
PROPERTY OWNER NAME	42 Kilroy Realty	ADDRESS	43 12200 W Olympic Bl/A
		PHONE	44 562-490-7514
Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.			
SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE	45 [Signature]	DATE	46
NAME OF SIGNER (print)	47 Scott Freeman	NAME OF DOCUMENT PREPARER (print)	49 Curtis Allen
TITLE OF SIGNER	48 President	TITLE OF DOCUMENT PREPARER	50 Director of Operations



CITY OF GARDEN GROVE, FIRE DEPARTMENT

11301 ACACIA PARKWAY, GARDEN GROVE, CALIFORNIA 92842

(714) 741-5600

(714) 741-5636

HAZARDOUS MATERIALS BUSINESS INFORMATION FORM

FORM 1

BUSINESS INFORMATION

(3) Page 1 of ___

FACILITY #	3	0	0	3	5				411	BEGINNING DATE (1)	2-21-2002	ENDING DATE (2)	12-31-2002
BUSINESS NAME (4)	Primal Elements							BUSINESS PHONE (5)	714-899-0757				
SITE ADDRESS (6)	12472 Edison Way												
CITY (7)	GARDEN GROVE					STATE (8)	CA	ZIP (9)	92841				
DUN & BRADSTREET (10)								SIC CODE (4 DIGIT #) (11)					
COUNTY	ORANGE												
OPERATOR NAME (12)	Curtis Allen							OPERATOR PHONE (13)	same as above				

BUSINESS OWNER INFORMATION

OWNER NAME (14)	Scott Freeman					OWNER PHONE (15)	714-899-0757					
OWNER MAILING ADDRESS (16)	Same as above											
CITY (17)	Garden Grove					STATE (18)	Ca	ZIP (19)	92841			

ENVIRONMENTAL CONTACT

CONTACT NAME (20)	Curtis Allen					CONTACT PHONE (21)	714-899-0757 ^{EXT} 261					
MAILING ADDRESS (22)	Same as above											
CITY (23)	-					STATE (24)	-		ZIP (25)	-		

Primary

EMERGENCY CONTACTS

Secondary

NAME (26)	Richard STURT					NAME (31)	Curtis Allen				
TITLE (27)	VP					TITLE (32)	Director of Operations				
BUSINESS PHONE (28)	714 899 0757 x208					BUSINESS PHONE (33)	714-899-0757 ^{EXT} 261				
24-HOUR PHONE (29)	714 894-2656					24-HOUR PHONE (34)	714-822-6146 Cell				
PAGER # (30)	714-7156850					PAGER # (35)					

(36)

ADDITIONAL LOCALLY COLLECTED INFORMATION

A. Type of Business Operation	Bath & Beauty Products / Candles / soap										
B. Hours of Business Operation	5:30 Am to 9pm										
C. Total Number of Employees	113										
D. Property Owner Name	Kilroy					Address	Long Beach				
E. Schools, hospitals within 1,000 ft. of business property	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>										

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE (37)	DATE (38)	SIGNATURE OF DOCUMENT PREPARER (41)
<i>[Signature]</i>	2-21-02	<i>[Signature]</i>
NAME OF SIGNER (print) (39)	NAME OF DOCUMENT PREPARER (print) (42)	
Richard Sturt	Curtis Allen	
TITLE OF SIGNER (print) (40)	TITLE OF DOCUMENT PREPARER (print) (43)	
Vice President	Director of Operations	



CALIFORNIA CHEMICAL INVENTORY FORM DESCRIPTION PAGE

411

FORM 3

(1) ADD DELETE REVISE

(2) PAGE 3 OF 5

BUSINESS NAME (3)	<i>Primal Elements</i>		
CHEMICAL LOCATION (4) <small>(Address, Area, Building, etc.)</small>	<i>12472 Edison Way South East Quadrant Center</i>	(5) CONFIDENTIAL LOCATION EPCRA <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
MAP # (if more than one) (6)	GRID# (FROM MAP) (7)	<i>F-6</i>	

CHEMICAL NAME (8)	<i>Chemical mix</i>	TRADE SECRET (11) <small>*IF EPCRA SEE INSTRUCTIONS</small>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
COMMON NAME (9)	<i>Coconut F62587</i>	AN EHS CHEMICAL (12)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
CAS# (10)	<i>MIXTURE</i>	<small>*IF EHS BOX IS "YES" ALL AMOUNTS MUST BE LBS</small>	
FIRE CODE (13)	<i>C III</i>	(36) FACILITY ID#	<i>30035</i> <i>411</i>

TYPE (14)	<input type="checkbox"/> PURE <input checked="" type="checkbox"/> MIXTURE <input type="checkbox"/> WASTE <input type="checkbox"/> SOLID <input checked="" type="checkbox"/> LIQUID <input type="checkbox"/> GAS	RADIOACTIVE (15)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO CURIES
PHYSICAL STATE (17)		LARGEST CONTAINER (21)	<i>50 Gallon</i>
FED HAZARD CATEGORIES (18)	<input checked="" type="checkbox"/> FIRE <input type="checkbox"/> REACTIVE <input type="checkbox"/> PRESSURE RELEASE <input type="checkbox"/> ACUTE HEALTH <input type="checkbox"/> CHRONIC HEALTH		
STATE WASTE CODE (19)	<i>-</i>	UNITS (22)	<input checked="" type="checkbox"/> GAL <input type="checkbox"/> CUFT <input type="checkbox"/> LBS <input type="checkbox"/> TONS
DAYS ON SITE (20)	<i>365</i>	*If EHS, amounts must be in lbs.	MAX DAILY AMT (23) <i>100</i> AVG DAILY AMT (24) <i>100</i> ANNUAL WASTE AMT (25) <i>-</i>

STORAGE CONTAINER (26)	<input type="checkbox"/> ABOVE GROUND TANK <input type="checkbox"/> CAN <input type="checkbox"/> BOX(S) <input type="checkbox"/> TANK WAGON <input type="checkbox"/> UNDER GROUND TANK <input type="checkbox"/> CARBOY <input type="checkbox"/> CYLINDER <input type="checkbox"/> RAIL CAR <input type="checkbox"/> TANK INSIDE BUILDING <input type="checkbox"/> SILO <input type="checkbox"/> GLASS CONTAINER <input type="checkbox"/> TOTE BIN <input checked="" type="checkbox"/> STEEL DRUM <input type="checkbox"/> FIBER DRUM <input type="checkbox"/> PLASTIC CONTAINER <input type="checkbox"/> Other <input type="checkbox"/> PLASTIC/NONMETALLIC DRUM <input type="checkbox"/> BAG(S) <input type="checkbox"/> IN MACHINERY OR EQUIP.			
PRESSURE STORAGE (27)	<input checked="" type="checkbox"/> AMBIENT <input type="checkbox"/> ABOVE AMBIENT <input type="checkbox"/> BELOW AMBIENT			
STORAGE TEMPERATURE (28)	<input checked="" type="checkbox"/> AMBIENT <input type="checkbox"/> ABOVE AMBIENT <input type="checkbox"/> BELOW AMBIENT <input type="checkbox"/> CRYOGENIC			

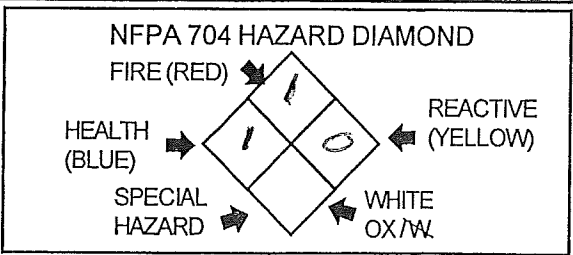
(29) % WT	(30) HAZARDOUS COMPONENTS	(31) EHS	(32) CAS #
(1)	<i>Dipropylene Glycol</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<i>110-98-5</i>
(2)	<i>Diethyl Phthalate</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<i>84-66-2</i>
(3)	<i>Benzyl Alcohol</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<i>100-51-6</i>
(4)	<i>Ethyl Caprylate</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<i>166-32-1</i>
(5)		<input type="checkbox"/> YES <input type="checkbox"/> NO	

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

(33) NFPA CLASSIFICATION

UNDOT# *un regulated*
Refer to shipping papers or MSDS

DOT HAZARD CLASS *3*
Refer to shipping papers or MSDS



(34) EPCRA YES NO

X _____
 (35) If EPCRA, Please Sign Here

MAKE AS MANY COPIES OF CHEMICAL INVENTORY FORM AS NEEDED

***** SECTION I *****

Print Date : 01/23/01

MANUFACTURER:

T F F - CALIFORNIA
9111 S. LaCienega Blvd Ste 206
Inglewood, CA 90301

EMERGENCY PHONE:

For Chemical Emergency - Spill, Leak, Fire
Exposure or Accident
Call CHEMTREC 800-424-9300 Day or Night

PROD. DESC.:

COCONUT 148-044

CUSTOMER CODE #:

148-044

TRADE NAME:

N.A.

CHEMICAL NAME & SYN : N.A.

MANUFACTURER'S IDENTIFICATION:

148-044

CHEMICAL FAMILY:

N.A.

CHEMICAL FORMULA:

COMPOUND

***** SECTION II - HAZARDOUS INGREDIENTS *****

INGREDIENT	PERCENT BY WGHT	CAS #	OSHA	PEL	ACGIH	TLV
N.A.						

***** SECTION III - PHYSICAL DATA *****

BOILING RANGE : N.A.	PERCENT VOLATILE	SPECIFIC GRAVITY
VAPOR PRESSURE: N.A.	BY VOLUME: N.A.	1.0340
VAPOR DENSITY : N.A.		
EVAPORATION RATE : N.A.		
SOLUBILITY IN WATER : INSOLUBLE		
APPEARANCE, FORM, COLOR, ODOR : PALE YELLOW LIQUID/COCONUT AROMA		

***** SECTION IV - FIRE AND EXPLOSION HAZARD DATA *****

FLAMMABILITY CLASSIFICATION: FLASH POINT (CLOSED CUP METHOD) : >200 DEG.F

EXTINGUISHING MEDIA:

CARBON DIOXIDE, FOAM OR DRY CHEMICAL

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SPECIAL FIRE FIGHTING PROCEDURES:

USE SELF CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.

***** SECTION V - HEALTH HAZARD DATA *****

O.S.H.A. #'s : Health = 1 0=least, 1=slight
Fire = 1 2=moderate, 3=high
Reactivity = 0 4=extreme

THRESHOLD LIMIT-VALUE: NOT ESTABLISHED
EFFECTS OF OVEREXPOSURE:
REDNESS OF SKIN AND/OR EYES

CARCINOGEN INFORMATION:
PRODUCT CONTAINS NO KNOWN CARCINOGENS.

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: REMOVE TO FRESH AIR.
EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES.
SKIN CONTACT: REMOVE CONTAMINATED CLOTHING AND WASH WITH SOAP AND WATER.
SWALLOWED: DRINK WATER OR MILK TO DILUTE, CONTACT POISON CONTROL.

SEEK MEDICAL ATTENTION IF ILL EFFECTS PERSIST.

***** SECTION VI - REACTIVITY DATA *****

STABILITY : STABLE

CONDITIONS TO AVOID:

ELEVATED TEMPERATURES ABOVE 60 DEGREES CENTIGRADE

INCOMPATIBILITY (MATERIALS TO AVOID):

AVOID STRONG OXIDIZING AGENTS

HAZARDOUS DECOMPOSITION PRODUCTS:

BURNING PRODUCES CARBON MONOXIDE AND CARBON DIOXIDE

HAZARDOUS POLYMERIZATION [] MAY OCCUR [X] WILL NOT OCCUR

POLYMERIZATION CONDITIONS TO AVOID:

N.A.

***** SECTION VII - SPILL OR LEAK PROCEDURES *****

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

ELIMINATE FLAMES AND SOURCES OF IGNITION. WIPE UP SMALL SPILLS WITH A CLOTH;
LARGER SPILLS USE POROUS ABSORBENT.

WASTE DISPOSAL METHOD:

FOLLOW FEDERAL, STATE AND LOCAL REGULATIONS FOR PROPER WASTE DISPOSAL.

***** SECTION VIII - SPECIAL PROTECTION INFORMATION *****

RESPIRATORY PROTECTION:

NOT USUALLY NECESSARY, BUT APPROVED RESPIRATOR CAN BE USED IF DESIRED.

VENTILATION:

LOCALIZED EXHAUST CAN BE USED TO REMOVE VAPORS.

PROTECTIVE GLOVES: USE CHEMICAL RESISTANT GLOVES.

EYE PROTECTION : USE SPLASH GOGGLES.

OTHER PROTECTIVE EQUIPMENT: EYE WASH STATION AND SAFETY SHOWER RECOMMENDED IN AR

***** SECTION IX - SPECIAL PRECAUTIONS *****

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

HANDLE ACCORDING TO GOOD SAFETY PROCEDURES AVOIDING UNNECESSARY EXPOSURE.

OTHER PRECAUTIONS:

STORE IN FULL CLOSED CONTAINERS IN A COOL DRY PLACE AWAY FROM DIRECT SUNLIGHT

DISCLAIMER

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond T F F - CALIFORNIA control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability for loss, damage or expense arising out of the improper use of this product. No warranty, expressed or implied, regarding the product described herein shall be created by or inferred from any statement or omission in this MSDS. Various government agencies may have specific regulations concerning the transportation, handling, storage, use or disposal of this product which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.



CALIFORNIA CHEMICAL INVENTORY FORM DESCRIPTION PAGE

FORM 3

(1) ADD DELETE REVISE

(2) PAGE 2 OF 3

BUSINESS NAME (3)	<i>Primal Elements</i>		
CHEMICAL LOCATION (4) <small>(Address, Area, Building, etc.)</small>	<i>12472 Edison Way South East Quadrant Center</i>	(5) CONFIDENTIAL LOCATION EPCRA <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
MAP # (if more than one) (6)	GRID# (FROM MAP) (7)	<i>F-6</i>	

CHEMICAL NAME (8)	<i>Cellini Blue (Chemical Mix)</i>	TRADE SECRET (11) <small>*IF EPCRA SEE INSTRUCTIONS</small>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
COMMON NAME (9)	<i>Engelhard-Merck Pigments</i>	AN EHS CHEMICAL (12)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
CAS# (10)	<i>12001-26-2 13463-67-7</i>	<small>*IF EHS BOX IS "YES" ALL AMOUNTS MUST BE LBS</small>	
FIRE CODE (13)	<i>Solid</i>	FACILITY ID# <i>30035</i>	

TYPE (14)	<input type="checkbox"/> PURE <input checked="" type="checkbox"/> MIXTURE <input type="checkbox"/> WASTE	RADIOACTIVE (15)	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO CURIES
PHYSICAL STATE (17)	<input checked="" type="checkbox"/> SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> GAS	LARGEST CONTAINER (21)	<i>25 lbs</i>
FED HAZARD CATEGORIES (18)	<input type="checkbox"/> FIRE <input type="checkbox"/> REACTIVE <input type="checkbox"/> PRESSURE RELEASE <input checked="" type="checkbox"/> ACUTE HEALTH <input type="checkbox"/> CHRONIC HEALTH		
STATE WASTE CODE (19)	<i>-</i>	UNITS (22)	<input type="checkbox"/> GAL <input type="checkbox"/> CUFT <input checked="" type="checkbox"/> LBS <input type="checkbox"/> TONS
DAYS ON SITE (20)	<i>365</i>	<small>*If EHS, amounts must be in lbs.</small>	
		MAX DAILY AMT (23)	<i>55</i>
		AVG DAILY AMT (24)	<i>40</i>
		ANNUAL WASTE AMT (25)	

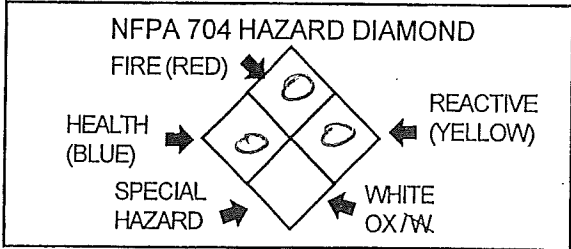
STORAGE CONTAINER (26)	<input type="checkbox"/> ABOVE GROUND TANK <input type="checkbox"/> CAN <input type="checkbox"/> BOX(S) <input type="checkbox"/> TANK WAGON <input type="checkbox"/> UNDER GROUND TANK <input checked="" type="checkbox"/> CARBOY <input type="checkbox"/> CYLINDER <input type="checkbox"/> RAIL CAR <input type="checkbox"/> TANK INSIDE BUILDING <input type="checkbox"/> SILO <input type="checkbox"/> GLASS CONTAINER <input type="checkbox"/> TOTE BIN <input type="checkbox"/> STEEL DRUM <input checked="" type="checkbox"/> FIBER DRUM <input type="checkbox"/> PLASTIC CONTAINER <input type="checkbox"/> Other <input type="checkbox"/> PLASTIC/NONMETALLIC DRUM <input type="checkbox"/> BAG(S) <input type="checkbox"/> IN MACHINERY OR EQUIP.			
PRESSURE STORAGE (27)	<input checked="" type="checkbox"/> AMBIENT <input type="checkbox"/> ABOVE AMBIENT <input type="checkbox"/> BELOW AMBIENT			
STORAGE TEMPERATURE (28)	<input checked="" type="checkbox"/> AMBIENT <input type="checkbox"/> ABOVE AMBIENT <input type="checkbox"/> BELOW AMBIENT <input type="checkbox"/> CRYOGENIC			

(29) % WT	(30) HAZARDOUS COMPONENTS	(31) EHS	(32) CAS #
(1) <i>38.6</i>	<i>Mica</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<i>12001-26-2</i>
(2) <i>35.0</i>	<i>Titanium dioxide</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<i>13463-67-7</i>
(3)		<input type="checkbox"/> YES <input type="checkbox"/> NO	
(4)		<input type="checkbox"/> YES <input type="checkbox"/> NO	
(5)		<input type="checkbox"/> YES <input type="checkbox"/> NO	

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

(33) NFPA CLASSIFICATION

UN/DOT# <i>Not regulated</i>	<small>Refer to shipping papers or MSDS</small>
DOT HAZARD CLASS	<small>Refer to shipping papers or MSDS</small>



(34) EPCRA YES NO

X _____
(35) If EPCRA, Please Sign Here

MAKE AS MANY COPIES OF CHEMICAL INVENTORY FORM AS NEEDED

ENGELHARD - MEARL PIGMENTS
MATERIAL SAFETY DATA SHEET

SECTION 1

NAME: Cellini Blue
PRODUCT CODE: 620CB1C

REVISION DATE: 12/16/97

MANUFACTURER: ENGELHARD - Mearl Pigments

HEALTH: 0
FLAMMABILITY: 0
REACTIVITY: 0
PERSONAL PROTECTION: E

STREET ADDRESS: 1057 Lower South St.
CITY, STATE: Peekskill, NY
ZIP CODE: 10566

INFORMATION TELEPHONE: (732)-205-7006 Ask for P.A.G.

EMERGENCY TELEPHONE: CHEMTREC (24 HOURS) 1-800-424-9300

INTERNATIONAL EMERGENCY: CHEMTREC (202)-483-7616 (CALL COLLECT)

SECTION 2 - HAZARDOUS INGREDIENTS/INFORMATION

HAZARDOUS COMPONENTS	CAS No.	APPROX. %	OSHA PEL mg/m3	ACGIH TLV mg/m3	OTHER
Mica	12001-26-2	38.6	20b	3c	N/A
Titanium dioxide	13463-67-7	35.0	15q	10q	N/A

c.respirable dust
q.total dust
N/A = Not available
b.mppcf

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

BOILING RANGE: Not applicable
EVAPORATION RATE: Not applicable
PERCENT VOLATILE BY WT.: Not applicable

VAPOR DENSITY: Not applicable
WEIGHT PER GALLON: 26.7 lbs/gal

SECTION 4 - FIRE & EXPLOSION DATA

FLASH POINT: Not applicable

EXTINGUISHING MEDIA: Use media appropriate to surrounding fire conditions.

SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus (SCBA) and full protective equipment recommended.

UNUSUAL EXPLOSION AND

FIRE HAZARDS: Emits toxic fumes under fire conditions.

SECTION 5 - PHYSICAL HAZARDS (REACTIVITY DATA)

STABILITY: Stable
CONDITIONS TO AVOID: Avoid heavy dusting

INCOMPATIBILITY: None known

HAZARDOUS DECOMPOSITION: Nature of decomposition products not known.

HAZARDOUS POLYMERIZATION: Will not occur

SECTION 6 - HEALTH HAZARD

ACUTE: Persistent cough, possible difficulty in breathing

CHRONIC: None recognized

SIGNS AND SYMPTOMS

OF EXPOSURE: Persistent cough, difficulty in breathing.

MEDICAL CONDITIONS GENERALLY

AGGRAVATED BY EXPOSURE: None known other than those which could be aggravated by dust exposure such as respiratory impairment.

EMERGENCY AND FIRST AID PROCEDURES: Consult physician.

ROUTES OF ENTRY: Eyes, inhalation, ingestion

SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

PRECAUTIONS TO BE TAKEN

IN STORAGE AND HANDLING: Normal precautions against spills. Avoid creation of dust.

OTHER PRECAUTIONS: Use a respirator if the material cannot be wetted.

STEPS TO BE TAKEN IF MATERIAL

IS RELEASED OR SPILLED: Avoid heavy dusting, shovel into containers and dispose.

WASTE DISPOSAL: Follow all Local, State or Provincial, and Federal regulations

SECTION 8 - SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

RESPIRATORY PROTECTION: Approved dust respirator

VENTILATION: Provide general dilution or local exhaust ventilation

PROTECTIVE GLOVES: As for industrial situations.

EYE PROTECTION: Safety glasses.

OTHER PROTECTIVE EQUIPMENT: Safety eye wash station

WORK AND HYGIENIC PRACTICES: Follow general industrial hygiene

The ingredients in this product are listed on the TSCA & Canadian DSL inventories.

The information contained in this MSDS is based on data from sources considered to be reliable but the Engelhard Corporation does not guarantee the accuracy or completeness thereof. The Engelhard Corporation urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with this product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology or fire prevention as necessary or appropriate to use and understand the data in this MSDS.