

APPENDIX H TO THE WORK PLAN

**MATERIAL SAFETY DATA SHEETS**

FOR THE

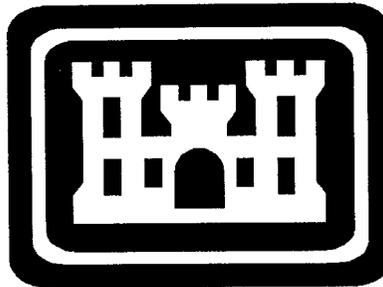
**SURFACE TO ONE-FOOT SUBSURFACE ORDNANCE  
AND EXPLOSIVES CONSTRUCTION SUPPORT**

**PROPOSED EASTERN BYPASS  
FORT MCCLELLAN, CALHOUN COUNTY, ALABAMA**

Contract Number: DACA87-97-D-0005

Task Order: 0012

Prepared For:



The U.S. Army Engineering and Support Center  
Huntsville, Alabama

Prepared By:



2229 Old Highway 95  
Lenoir City, Tennessee 37771

July 1999

S.C. Johnson Wax  
 Racine, Wisconsin 53403-5011  
 Phone: (414) 631-2777  
 Emergency Phone: (800) 228-5635  
 Extension 092  
 International Emergency Phone:  
 (612) 221-3999 Ext 092

4=Very High  
 3=High  
 2=Moderate  
 1=Slight  
 0=Insignificant

HAZARD RATING	
HMIS	NFPA
1 Health	1
2 Flammability	2
0 Reactivity	0

## MATERIAL SAFETY DATA SHEET

### SECTION I-PRODUCT IDENTIFICATION

PRODUCT NAME: <b>RAID WASP &amp; HORNET KILLER X</b>			PRODUCT CODE: 11350-13	
CHEMICAL OR COMMON NAME: NA	DATE ISSUED: 12/22/94	SUPERSEDES: 07/19/94	MSDS SECTIONS WITH CHANGES: II	
			PREPARED BY: Terry A. Meyers Chemical Info. Adm.	

### SECTION II-INGREDIENT INFORMATION

INGREDIENTS	WEIGHT %	EXPOSURE LIMIT
Petroleum Solvent (CAS# 64742-47-8)	65-75	200 PPM TLV-EXXON RECOMMENDED
Isopropanol (CAS# 67-63-0)	20-30	400 ppm OSHA/ACGIH TWA; 500 ppm OSHA/ACGIH STEL
Carbon Dioxide (CAS# 124-38-0)	1-5	5000 ppm OSHA PEL, ACGIH TLV-TWA
Propoxur (CAS# 114-26-1)	under 0.5	0.5 MG/M3 ACGIH/OSHA TWA
Tetramethrin (CAS# 7696-12-0)	under 0.5	NOT ESTABLISHED

### SECTION III-PHYSICAL DATA

APPEARANCE/ODOR: Dispensed as a spray stream with solvent odor	SPECIFIC GRAVITY (H2O=1): 1.07
VAPOR PRESSURE (mm Hg): ND	PERCENT VOLATILE BY VOLUME (%): NA
SOLUBILITY IN WATER: Negligible	VAPOR DENSITY (AIR=1): ND
FREEZING POINT (°F): NA	BOILING POINT (°F): ND
pH: NA	EVAPORATION RATE (Butyl Acetate=1): NA
VOC (as packaged, minus H2O): ND	THEORETICAL VOC (lb/gal): ND

### SECTION IV-FIRE AND EXPLOSION INFORMATION

FLASH POINT (°F) (Method Used): 53 (TCC)
FLAMMABLE LIMITS: NA
EXTINGUISHING MEDIA: Foam. CO2. Dry Chemical. Water Fog.
SPECIAL FIREFIGHTING PROCEDURES: Normal fire fighting procedures may be used. Fight fire from maximum distance or protected area. Fire fighters should wear self-contained breathing apparatus and protective clothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS: No special hazards known.

# MATERIAL SAFETY DATA SHEET

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S.C. Johnson Wax 1525 Howe Street Racine, Wisconsin 53403	RAID WASP & HORNET KILLER X Product Number: 11350 Serial Number: 13
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## SECTION V-HEALTH HAZARD DATA

PRIMARY ROUTE OF ENTRY:	Skin contact.
SIGNS AND SYMPTOMS:	Direct contact of product with eyes can cause irritation. Prolonged or repeated contact of product with skin may cause irritation. If taken internally, aspiration of liquid product can cause chemical pneumonitis.
FIRST AID PROCEDURES:	Flush eyes with water for 15-20 minutes. If irritation persists, seek medical aid. If product gets on skin, remove with soap and water. If product is swallowed, do not induce vomiting. Seek medical aid at once. Notes to physician: Atropine is antidotal and should be administered only after symptoms appear.
MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE:	None known to S.C. Johnson Wax

## SECTION VI-REACTIVITY DATA

STABILITY:	Stable
STABILITY-CONDITIONS TO AVOID:	None known
INCOMPATIBILITY:	None known
HAZARDOUS DECOMPOSITION PRODUCTS:	When exposed to fire, produces normal products of combustion.
HAZARDOUS POLYMERIZATION:	Will not occur.
HAZARDOUS POLYMERIZATION-CONDITIONS TO AVOID:	None known

## SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:	Wipe up spill with cloth and dispose of properly. Rinse affected area thoroughly with water.
WASTE DISPOSAL INFORMATION:	Disposal of regulated quantities should be by incineration at a permitted facility in accordance with all Federal/State regulations and local ordinances regarding disposal of ignitable wastes. Recycle empty aerosol can to nearest steel recycling center. Use up package or give to someone who can.

## SECTION VIII-SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:	If ventilation is adequate, respiratory protection not required.
VENTILATION:	For outdoor use only. Do not use indoors or in poorly ventilated areas.
PROTECTIVE GLOVES:	If prolonged or repeated contact is possible: Any impervious material.
EYE PROTECTION:	Chemical workers splash-proof goggles
OTHER PROTECTIVE MEASURES:	Use good personal hygiene practices. Where gross eye/skin contact may be a problem, wear/use appropriate protective equipment.

# MATERIAL SAFETY DATA SHEET

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S.C. Johnson Wax  
1525 Howe Street  
Racine, Wisconsin 53403

RAID WASP & HORNET KILLER X  
Product Number: 11350  
Serial Number: 13

## SECTION IX-SPECIAL PRECAUTIONS

PRECAUTIONARY LABELING: CAUTION: Keep out of reach of children. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Eye contact with product stream may cause severe discomfort. If swallowed, call a physician or poison control center immediately. Gastric lavage is indicated if taken internally. Do not induce vomiting. See Section X.

OTHER HANDLING AND STORAGE CONDITIONS: Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. Do not pressurize, cut, heat, weld or expose container to flame; explosion could occur. Wash thoroughly after handling. Keep out of reach of children.

## SECTION X-ADDITIONAL INFORMATION

ADDITIONAL INFORMATION: NFPA 30B Level 3 Vomiting may cause aspiration pneumonia. Note to physician: If symptoms of cholinesterase inhibition are present, atropine sulfate is antidotal.

EPA REGISTRATION #: 4822-224

## SECTION XI-TRANSPORTATION INFORMATION

DOT CLASS: ORM-D.

DOT #: None

SHIPPING NAME: Insecticides or insect repellents, NOI, other than poison.

## SECTION XII-REGULATORY INFORMATION

All components of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

NA-Not Applicable, NE-Not Established, NSR-No Special Requirement, ND-Not Determined

The information herein is given in good faith. No warranty expressed or implied is made. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State, and local laws and regulations. The information contained in this form is confidential and is submitted solely for your organization's internal use.

R-106 (Rev 5 - 10/90)

-----  
UNLEADED GASOLINE  
34310019                      Revised 19-NOV-1994                      Printed 13-JAN-1995  
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-----  
CHEMICAL PRODUCT/COMPANY IDENTIFICATION  
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Material Identification

Corporate MSDS Number : DU001044

Tradenames and Synonyms

AUTOMOTIVE UNLEADED GASOLINE  
PETROL  
MOTOR SPIRITS  
GASOLINE - UNLEADED  
CC0379

Company Identification

MANUFACTURER/DISTRIBUTOR  
PURCHASED MATERIAL

PHONE NUMBERS

Transport Emergency : CHEMTREC: 1-800-424-9300  
Medical Emergency : 1-800-441-3637

-----  
COMPOSITION/INFORMATION ON INGREDIENTS  
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Components

Material	CAS Number	%
GASOLINE	8006-61-9	100
*BENZENE	71-43-2	0.1-4.9
*ETHYLBENZENE	100-41-4	~2
*CUMENE	98-82-8	~1
*PSEUDOCUMENE	95-63-6	~2
*METHYL T-BUTYL ETHER	1634-04-4	<15
*XYLENES	1330-20-7	~12
*TOLUENE	108-88-3	~15

\* Regulated as a Toxic Chemical under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

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UNLEADED GASOLINE

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## Components (Remarks)

Components listed above are typical for Conoco produced gasoline. Gasoline is a variable complex mixture of components, principally hydrocarbons, blended to performance, rather than chemical, specifications. It may contain various proprietary additives.

This MSDS does not cover leaded gasoline.

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HAZARDS IDENTIFICATION  
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## Potential Health Effects

Primary Routes of Exposure/Entry: Skin, Inhalation.

Signs and Symptoms of Exposure/Medical Conditions Aggravated by Exposure: A few studies have indicated that workers exposed many years to high concentrations of benzene have a slightly higher incidence of leukemia. Benzene can also be toxic to the blood and blood-forming tissues.

Studies with mice or rats have shown that some petroleum distillates have caused either damage or tumors of the kidneys or tumors of the liver. However, kidney effects were not seen in similar studies involving guinea pigs, dogs or monkeys. Also, the significance of the liver tumors in rodents is highly speculative.

Mouse skin painting studies have shown that petroleum middle distillates (boiling range of 100-700 deg F; naphtha, jet fuel, diesel fuel, kerosene, etc.) can cause skin cancer when repeatedly applied and never washed from the animal's skin. The relative significance of this to human health is uncertain since the petroleum distillates were not washed from the skin and resulting skin effects (irritation, cell damage, etc.) may play a role in the tumorigenic response. A few studies have shown that washing the animal's skin with soap and water between treatments greatly reduces the carcinogenic effect of some petroleum oils.

The product contains petroleum hydrocarbons which may cause irritation to eyes, skin and lungs after prolonged or repeated exposure. Extreme exposure or aspiration into the lungs may cause pneumonia. Overexposure may cause weakness, headache, nausea, confusion, blurred vision, drowsiness and other nervous system effects; greater exposure may cause dizziness, slurred speech, flushed face, unconsciousness or convulsions.

## Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens. A "P" indicates a proposed carcinogen.

Material	IARC	NTP	OSHA	ACGIH
GASOLINE	X			
BENZENE	X	X	X	X

Du Pont controls the following materials as potential carcinogens:  
 BENZENE.

-----  
 FIRST AID MEASURES  
 -----

## First Aid

## INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

## SKIN CONTACT

In case of contact, immediately wash skin with soap and water. Wash contaminated clothing before reuse.

If irritation develops, consult a physician.

## EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

## INGESTION

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

## Notes to Physicians

Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400 mL water and mix thoroughly. Administer 5 mL/kg, or 350 mL for an average adult.

Minute amounts aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

-----  
FIRE FIGHTING MEASURES  
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## Flammable Properties

Flash Point : As low as -50 F  
Method : TCC  
Flammable limits in Air, % by Volume  
LEL : < 1  
UEL : 8

Flammable liquid. Vapor forms explosive mixture with air. Vapors or gases may travel considerable distances to ignition source and flash back.

NFPA Classification : Class IA Flammable Liquid.

Hazardous gases/vapors produced in fire are carbon monoxide.

## Extinguishing Media

Foam, Dry Chemical, CO2.

## Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Shut off source of fuel, if possible and without risk. Cool tank/container with water spray.

Special Fire Fighting Procedures: Water may be ineffective to extinguish, but water should be used to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop a leak. Water spray may be used to flush spills away from areas of potential ignition.

Unusual Fire and Explosion Hazards: Highly Flammable. Products of combustion may contain carbon monoxide, carbon dioxide and other toxic materials. Do not enter enclosed or confined space without proper protective equipment including respiratory protection.

-----  
ACCIDENTAL RELEASE MEASURES  
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## Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus.

## Initial Containment

Remove source of heat, sparks, flame, impact, friction or electricity. Dike spill. Prevent material from entering sewers, waterways, or low areas.

## Accidental Release Measures

Several components of gasoline are subject to the Superfund reportable discharge requirements if spilled. Concentrations of gasoline components with a Superfund Reportable Quantity (RQ) will depend on vendor formulations.

-----  
HANDLING AND STORAGE  
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## Handling (Personnel)

Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling.

For use as a motor fuel only. Do not use as a cleaning solvent, or thinner, or for other non-motor fuel uses.

## Handling (Physical Aspects)

Ground container when pouring. Use of non-sparking and explosion-proof equipment may be necessary depending on type of operation. Keep away from heat, sparks and flames.

## Storage

Keep container in a cool place. Do NOT expose to direct sunlight. Store in a well ventilated place. Keep container tightly closed. Store in accordance with National Fire Protection Association recommendations.

-----  
EXPOSURE CONTROLS/PERSONAL PROTECTION  
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## Engineering Controls

Keep container tightly closed.

Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits.

## Personal Protective Equipment

## EYE/FACE PROTECTION

Wear safety glasses. Wear coverall chemical splash goggles and face shield when the possibility exists for eye and face contact due to splashing or spraying of material.

## RESPIRATORS

A NIOSH/MSHA approved air purifying respirator with a organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

## PROTECTIVE CLOTHING

Wear impervious clothing, such as gloves, apron, boots or whole bodysuit as appropriate. Conoco recommends NBR or Neoprene impervious clothing.

## # Exposure Guidelines

## Applicable Exposure Limits

## GASOLINE

PEL (OSHA) : None Established  
 TLV (ACGIH) : 300 ppm, 890 mg/m<sup>3</sup>, 8 Hr. TWA  
 STEL 500 ppm, 1,480 mg/m<sup>3</sup>  
 AEL \* (Du Pont) : None Established

## BENZENE

PEL (OSHA) : 1 ppm, 8 Hr. TWA  
 5 ppm, STEL  
 0.5 ppm, Action Level  
 TLV (ACGIH) : 10 ppm, A2, 32 mg/m<sup>3</sup>, A2, 8 Hr. TWA  
 Notice of Intended Changes (1994-1995)  
 0.3 ppm, 0.96 mg/m<sup>3</sup>, 8 Hr. TWA, Skin, A1  
 AEL \* (Du Pont) : 1 ppm, 8 & 12 Hr. TWA  
 5 ppm, 15 minute TWA

## ETHYLBENZENE

PEL (OSHA) : 100 ppm, 435 mg/m<sup>3</sup>, 8 Hr. TWA  
 TLV (ACGIH) : 100 ppm, 434 mg/m<sup>3</sup>, 8 Hr. TWA  
 STEL 125 ppm, 543 mg/m<sup>3</sup>  
 AEL \* (Du Pont) : None Established

## CUMENE

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PEL (OSHA) : 50 ppm, 245 mg/m3, 8 Hr. TWA, Skin  
TLV (ACGIH) : 50 ppm, 246 mg/m3, 8 Hr. TWA, Skin  
AEL \* (Du Pont) : None Established

PSEUDOCUMENE  
PEL (OSHA) : 25 ppm, 125 mg/m3, 8 Hr. TWA  
TLV (ACGIH) : 25 ppm, 123 mg/m3, 8 Hr. TWA  
AEL \* (Du Pont) : None Established

METHYL T-BUTYL ETHER  
PEL (OSHA) : None Established  
TLV (ACGIH) : 40 ppm, 144 mg/m3, 8 Hr. TWA  
Notice of Intended Changes (1994-1995)  
40 ppm, 144 mg/m3, 8 Hr. TWA, A3  
AEL \* (Du Pont) : None Established  
WEEL (AIHA) : 100 ppm, 8 Hr. TWA

XYLENES  
PEL (OSHA) : 100 ppm, 435 mg/m3, 8 Hr. TWA  
TLV (ACGIH) : 100 ppm, 434 mg/m3, 8 Hr. TWA  
STEL 150 ppm, 651 mg/m3  
AEL \* (Du Pont) : 100 ppm, 8 Hr. TWA  
150 ppm, 15 minute TWA

TOLUENE  
PEL (OSHA) : 200 ppm, 8 Hr. TWA  
300 ppm, Ceiling  
500 ppm - 10 Min. Max.  
TLV (ACGIH) : 50 ppm, 188 mg/m3, 8 Hr. TWA, Skin  
AEL \* (Du Pont) : 50 ppm, 8 & 12 Hr. TWA

\* AEL is Du Pont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

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PHYSICAL AND CHEMICAL PROPERTIES  
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## Physical Data

Boiling Point : 29-225 C (84-437 F)  
Vapor Pressure : 275-475 mm Hg @ 20 C (68 F)  
% Volatiles : 100% by Volume  
Solubility in Water : May be slightly soluble  
Odor : Gasoline  
Form : Liquid  
Color : Red-dyed, pink, or colorless to light yellow  
Specific Gravity : 0.70-0.77 (H2O=1)

## Physical Hazards

Physical and Flammable properties are typical of Conoco products; data reported above may vary slightly for other vendors' products.

-----  
STABILITY AND REACTIVITY  
-----

## Chemical Stability

Stable at normal temperatures and storage conditions.

Avoid contact with strong oxidants such as chlorine, concentrated oxygen, or hypochlorites. Keep from heat, flame and other ignition sources.

## Decomposition

Hazardous gases/vapors produced are carbon monoxide from incomplete oxidation.

## Polymerization

Polymerization will not occur.

-----  
DISPOSAL CONSIDERATIONS  
-----

## Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

Recycle as much of the recoverable product as possible.

CERCLA RQ - METHYL TERT-BUTYL ETHER = 1 LB

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TRANSPORTATION INFORMATION  
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## Shipping Information

## DOT

Proper Shipping Name : GASOLINE  
Hazard Class : FLAMMABLE LIQUID  
I.D. No. (UN/NA) : UN1203  
DOT Label(s) : FLAMMABLE LIQUID  
DOT Placard : FLAMMABLE

## DOT/IMO

Proper Shipping Name : GASOLINE OR MOTOR SPIRIT

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Hazard Class : 3 (IMO 3.1)  
UN No. : UN1203  
DOT/IMO Label : FLAMMABLE LIQUID  
Packing Group : II

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**REGULATORY INFORMATION**

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**U.S. Federal Regulations**

TSCA Inventory Status : Reported/Included.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes  
Chronic : Yes  
Fire : Yes  
Reactivity : No  
Pressure : No

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**OTHER INFORMATION**

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**NFPA, NPCA-HMIS**

NFPA Rating  
Health : 1  
Flammability : 3  
Reactivity : 0

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The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : Du Pont  
Address : Corporate MSDS Office - HR  
Barley Mill Plaza, P14-2150  
Wilmington, DE 19880-0014  
Telephone : 302-992-6704

# Indicates updated section.

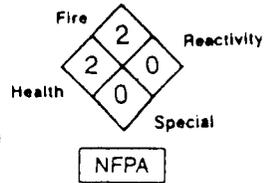
End of MSDS



SECTION VI. HEALTH HAZARD INFORMATION	TLV 5 mg/m <sup>3</sup> oil (mist) (See Sect II)
<p>Inhalation of excessive concentrations of vapor or mist can be irritating to the respiratory passages and can cause the following symptoms: headache, dizziness, nausea, vomiting, and loss of coordination. Prolonged or repeated skin contact may cause irritation of the hair follicles and block the sebaceous glands. This produces a rash of acne pimples and spots, usually on the arms and legs. (Good personal hygiene will prevent this).</p> <p>Chemical pneumonitis may result when ingestion occurs and oil is aspirated in the lungs.</p> <p><b>FIRST AID:</b></p> <p><u>Eye Contact:</u> Flush thoroughly with running water for 15 min. including under eyelids.</p> <p><u>Skin Contact:</u> Remove contaminated clothing. Wipe excess oil off with a dry cloth. Wash affected area well with soap and water.</p> <p><u>Inhalation:</u> Remove to fresh air. Restore and/or support breathing as required.</p> <p><u>Ingestion:</u> Do not induce vomiting.</p> <p>Seek medical assistance for further treatment, observation and support.</p>	
SECTION VII. SPILL, LEAK, AND DISPOSAL PROCEDURES	
<p>Notify safety personnel of leaks or spills. Remove sources of heat or ignition. Provide adequate ventilation. Clean-up personnel to use protection against liquid contact and vapor or mist inhalation. Contain spill by diking. Small spills can be contained by using absorbants, such as rags, straw, polyurethane foam, activated carbon, and sand. Clean up spills promptly to reduce fire or vapor hazards.</p> <p><u>DISPOSAL:</u> May be disposed of by a licensed waste disposal company, or by controlled incineration or burial in an approved landfill.</p> <p>Follow Federal, State and Local regulations. Report large oil spills.</p>	
SECTION VIII. SPECIAL PROTECTION INFORMATION	
<p>Provide adequate ventilation where operating conditions (heating or spraying) may create excessive vapors or mists. Use explosion proof equipment. Provide approved respiratory apparatus for nonroutine or emergency use. Use an approved filter &amp; vapor respirator when vapor/mist concentrations are high. Wear protective rubber gloves and chemical safety glasses where contact with liquid or high mist conc. may occur. Additional suitable protective clothing may be required depending on working conditions. An eye-wash fountain and washing facilities to be readily available near handling and use areas.</p> <p>Laundry soiled or contaminated clothing before reuse (at least weekly laundering of work clothes is recommended).</p>	
SECTION IX. SPECIAL PRECAUTIONS AND COMMENTS	
<p>Store in closed containers in a cool, dry, well-ventilated area away from sources of open flame, heat, strong oxidizing agents, and ignition. Protect containers from physical damage. Use non sparking tools and explosion-proof electrical equipment. Prevent static electric sparks.</p> <p>Avoid prolonged skin contact and breathing of vapors or mists.</p> <p>No smoking in areas of use. Follow good hygienic practice in the use of this material. Do not wear oil contaminated clothing. Do not put oily rags into pockets. Wash exposed skin areas several times a day with soap and warm water when working with this material.</p> <p>DOT Classification: COMBUSTIBLE LIQUID</p>	
DATA SOURCE(S) CODE: 1,6,7,12	APPROVALS: MIS CRD <i>J.M. Miller</i>
<p><small>Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Genium Publishing Corporation extends no warranties, makes no representations and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.</small></p>	Industrial Hygiene and Safety <i>JW</i> 10-12-81
MEDICAL REVIEW: 21 October 1981	



# WD-40®



## MATERIAL SAFETY DATA SHEET

### I. PRODUCT IDENTIFICATION

Manufacturer: WD-40 Company	Telephone:
Address: 1061 Cudahy Place (92110) P.O. Box 80607 San Diego, California 92138-0607	Emergency Only: 1 (800) 424-9300 (CHEMTREC) Information: (619) 275-1400
	Chemical Name: Organic Mixture
	Trade Name: WD-40 Bulk Liquid

### II. HAZARDOUS INGREDIENTS

Chemical Name	CAS Number	%	Exposure Limit ACGIH/OSHA
Aliphatic Petroleum Distillates	8052-41-3	70	100 ppm PEL
Petroleum Base Oil	64742-65-0	> 20	5 mg/M <sup>3</sup> TWA (mist)
Non-hazardous Ingredients		< 10	

### III. PHYSICAL DATA

Boiling Point:	300°F (minimum)	Evaporation Rate:	Not determined
Vapor Density (air = 1):	Greater than 1	Vapor Pressure:	Not determined
Solubility in Water:	Insoluble	Appearance:	Cloudy light amber
Specific Gravity (H <sub>2</sub> O = 1):	.800 @ 70°F	Odor:	Characteristic odor
Percent Volatile (volume):	74%	VOC:	568 grams per liter

### IV. FIRE AND EXPLOSION

Flash Point:	Tag Open Cup 110°F (minimum)
Flammable Limits:	(solvent portion) [Lel] 1.0% [Uel] 6.0%
Extinguishing Media:	CO <sub>2</sub> , Dry Chemical, Foam
Special Fire Fighting Procedures:	None
Unusual Fire and Explosion Hazards:	None

### V. HEALTH HAZARD / ROUTE(S) OF ENTRY

<b>Threshold Limit Value</b>	
Aliphatic Petroleum Distillates (Stoddard solvent) lowest TLV (ACGIH 100 ppm.)	
<b>Symptoms of Overexposure</b>	
Inhalation (Breathing):	May cause anesthesia, headache, dizziness, nausea and upper respiratory irritation.
Skin Contact:	May cause drying of skin and or irritation.
Eye Contact:	May cause irritation, tearing and redness.
Ingestion (Swallowed):	May cause irritation, nausea, vomiting and diarrhea.
<b>First Aid Emergency Procedures</b>	
Ingestion (Swallowed):	Do not induce vomiting, seek medical attention.
Eye Contact:	Immediately flush eyes with large amounts of water for 15 minutes.
Skin Contact:	Wash with soap and water.
Inhalation (Breathing):	Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.
<b>DANGER!</b>	
Aspiration Hazard:	If swallowed can enter lungs and may cause chemical pneumonitis. Do not induce vomiting. Call Physician immediately.
<b>Suspected Cancer Agent</b>	
Yes _____ No <u>X</u>	The components in this mixture have been found to be noncarcinogenic by NTP, IARC and OSHA.

## VI. REACTIVITY DATA

Stability:	Stable <u>  X  </u>	Unstable <u>      </u>
Conditions to avoid:	NA	
Incompatibility:	Strong oxidizing materials	
Hazardous decomposition products:	Thermal decomposition may yield carbon monoxide and/or carbon dioxide.	
Hazardous polymerization:	May occur <u>      </u>	Will not occur <u>  X  </u>

## VII. SPILL OR LEAK PROCEDURES

### Spill Response Procedures

Absorb small quantities with sand, earth, sawdust. Large quantities pump into tank.

### Waste Disposal Method

Incinerate liquid, bury saturated absorbent in land fill. Dispose of in accordance with local, state and federal regulations.

## VIII. SPECIAL HANDLING INFORMATION

Ventilation:	Sufficient to keep solvent vapor less than TLV.
Respiratory Protection:	Advised when concentrations exceed TLV.
Protective Gloves:	Advised to prevent possible skin irritation.
Eye Protection:	Approved eye protection to safeguard against potential eye contact, irritation or injury.
Other Protective Equipment:	None required.

## IX. SPECIAL PRECAUTIONS

Keep from open flame, do not take internally. Avoid excessive inhalation of spray particles. Keep from children.

## X. TRANSPORTATION DATA

### Domestic Surface

Description:	Petroleum Distillates N.O.S.
Hazard Class:	Combustible Liquid
ID No.:	UN 1268
Packaging Group:	III
Label Required:	NONE, for containers less than 100 Gallons

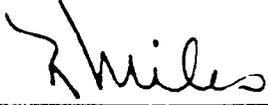
### Domestic Air

Description:	Petroleum Distillates N.O.S. (Stoddard Solvent)
Hazard Class:	3 UN 1268 PGIII
Label Required:	Flammable Liquid

## XI. REGULATORY INFORMATION

All ingredients for this product are listed on the TSCA inventory.

SARA Title III chemicals:	None
California Prop 65 chemicals:	None
CERCLA reportable quantity:	None
RCRA hazardous waste no:	D001 (Ignitable)

SIGNATURE:   R. Miles   

TITLE:   Technical Director  

REVISION DATE:   October 1993  

SUPERSEDES:   August 1992  

A = Not applicable

NDA = No data available

< = Less than

> = More than

# MATERIAL SAFETY DATA SHEET

## SECTION I

FEB 26 1987

PRODUCT NAME LAVOPTIK Eye Wash

SIZE 6 and 32 ounce

CHEMICAL NAME Eye Wash

FORMULA gms per 100ml Sodium Chloride 0.49, Sodium Biphosphate 0.40,  
 Sodium Phosphate 0.45, Benzalkonium Chloride .005, Water to 100ml

MANUFACTURER LAVOPTIK COMPANY, INC.

ADDRESS 661 WESTERN AVENUE NORTH ST. PAUL, MN. 55103

FOR INFORMATION ON HEALTH HAZARDS CALL (612) 489-1351

FOR OTHER INFORMATION CALL (612) 489-1351

INFORMATION EFFECTIVE AS OF 10/1/86

## SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT(S)	%	TLV (Units)
None		

## SECTION III PHYSICAL DATA

BOILING POINT (*F) Same as Water	SPECIFIC GRAVITY (H <sub>2</sub> O=1) 1
VAPOR PRESSURE (mm Hg) N/A	PERCENT VOLATILE BY VOLUME (%) 98.655%
VAPOR DENSITY (AIR=1) N/A	EVAPORATION RATE (°1) Same as Water
SOLUBILITY IN WATER 100%	

APPEARANCE AND ODOR Clear, no odor

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used) Not Applicable	FLAMMABLE LIMITS	Lel	Uel
---	------------------	-----	-----

EXTINGUISHING MEDIA

SPECIAL  
 FIRE-FIGHTING  
 PROCEDURES

UNUSUAL FIRE AND  
 EXPLOSION HAZARDS

## SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

Not Applicable

EFFECTS OF OVEREXPOSURE

EMERGENCY AND FIRST-AID PROCEDURES

## SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
N/A	STABLE	

INCOMPATIBILITY  
(Materials to avoid)

HAZARDOUS  
DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION	CONDITIONS TO AVOID
May Occur	
Will Not Occur	

## SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN  
IF THE MATERIAL IS  
RELEASED OR SPILLED

Safe for humans to handle

WASTE DISPOSAL METHOD

Any Sewer

## SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION  
(Specify Type)

Not Applicable

VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (general)	OTHER

PROTECTIVE GLOVES	EYE PROTECTION
-------------------	----------------

OTHER  
PROTECTIVE  
EQUIPMENT

## SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE  
TAKEN IN HANDLING  
AND STORING

Protect from freezing

OTHER PRECAUTIONS

Material Name  
Quaker State HD 10W Motor Oil

Page : 1  
Issue Date: 11/04/1994  
MSDS No.: QS-021

**Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Chemical Name: Petroleum distillate mixture  
Internal Part No.: Order Nos. 03408 (5 gallon); 03410 (55 gallon); 03419 bulk

**Manufacturer Information**  
Quaker State Corporation  
P.O. Box 989  
Oil City, Pennsylvania 16301  
----PHONE #: (814)676-7676  
EMERGENCY #: (814)676-7676  
Mfg. Part #NA

**Supplier Information**  
None  
----PHONE #:  
EMERGENCY #:  
  
Sup. Part #NA

Synonyms: Motor Oil

**Section 2 - COMPOSITION / INFORMATION ON INGREDIENTS**

CAS #	Components	% Vol
64742-65-0	Petroleum Distillates, Solvent Dewaxed Heavy Paraffinic	80-95
68649-42-3	Zinc C1-C14 alkyldithiophosphate	1-2
84605-20-9	Polyolefin alkene amine	1-5

**Component Information/Information on Non-Hazardous Components**  
This product is not considered a hazardous product under 29 CFR 1910.1200 (Hazard Communication). All mineral oils used in this product have been severely hydrotreated and/or solvent refined.

**Section 3 - HAZARDS IDENTIFICATION**

**Emergency Overview**

This product is a viscous amber liquid. It will burn at elevated temperatures (above 400 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.

**Label Information**

**WARNING:** Continuous contact with used motor oil has caused skin 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.

**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.

**Ingestion**

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

Material Name  
Quaker State HD 10W Motor Oil

Page : 2  
Issue Date: 11/04/1994  
MSDS No.: QS-021

**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.

<b>Section 4 - FIRST AID MEASURES</b>
---------------------------------------

**Eyes**

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

**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.

**Ingestion**

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

**Inhalation**

Remove to fresh air. If not breathing, give mouth to mouth resuscitation. If breathing is difficult, give oxygen. Call a physician.

**Notes to Physician**

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

<b>Section 5 - FIRE FIGHTING MEASURES</b>
---

<b>Flash Point</b>	<b>Method Used</b>
400 deg F (204 deg C)	Cleveland Open Cup

<b>UFL</b>	<b>LFL</b>	<b>Auto Ignition</b>
Not determined	Not determined	Not determined

<b>Flammability Classification</b>	<b>Rate of Burning</b>
IIIB	Not determined

**General Fire Hazards**

This product is combustible at high temperatures.

**Hazardous Combustion Products**

Carbon dioxide, carbon monoxide, oxides of sodium, calcium, magnesium, phosphorus, and zinc.

**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. Use water spray to cool fire-exposed containers and as a protective screen. Do not point solid water stream directly into burning oil to avoid spreading.

Continued on next page...

Material Name  
Quaker State HD 10W Motor Oil

Page : 3  
Issue Date: 11/04/1994  
MSDS No.: QS-021

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

HMIS Ratings: Fire: 1 Health: 1 Reactivity: 0  
Personal Protection: gloves, glasses/face shield

**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. 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 Instructions**

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

**Section 7 - HANDLING AND STORAGE**

**Procedures for Handling**

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.

**Recommended Storage Methods**

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/m<sup>3</sup>. Protect from skin and eye contact.

**B. Component Exposure Limits**

No ACGIH, NIOSH or OSHA exposure guidelines listed for this product's components.

Engineering Ctrl.: Use general ventilation. Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face:** Wear safety glasses; chemical goggles (if splashing is possible).

DATA SHEET

Material Name  
Quaker State HD 10W Motor Oil

Page : 4  
Issue Date: 11/04/1994  
MSDS No.: QS-021

**Skin:** Use impervious gloves for prolonged contact or any contact with used oil. The use of neoprene gloves is recommended.  
**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.  
**General:** Use good hygiene when handling petroleum product.

**Section 9 - PHYSICAL & CHEMICAL PROPERTIES**

Appearance	: Light amber	Odor	: Mild hydrocarbon
Physical State	: Liquid	pH	: Not applicable
Vapor Pressure	: Negligible	Vapor Density	: Not determined
Boiling Point	: Not determined	Freezing Point	: Not determined
Melting Point	: Not determined	Solubility (H2O)	: Negligible in water
Specific Gravity	: 0.87 to 0.88	Particle Size	: Not applicable
Softening Point	: Not determined	Evaporation Rate	: Not determined
Viscosity	: approx. 210 SUS @ 100 F	Bulk Density	: Not determined
Percent Volatile	: Negligible	Molecular Weight	: Mixture
Additional Properties	None		

**Section 10 - CHEMICAL STABILITY & REACTIVITY INFORMATION**

**Chemical Stability:** Stable  
**Conditions to Avoid:** Avoid excessive heat and all sources of ignition.  
**Incompatibility**  
Strong oxidizing agents (peroxides, chlorine, strong acids).  
**Hazardous Decomposition Products**  
At thermal decomposition temperatures carbon dioxide, carbon monoxide, oxides of calcium, magnesium, phosphorus, and zinc.  
**Hazardous Polymerization**  
Hazardous polymerization will not occur.

**Section 11 - TOXICOLOGICAL INFORMATION**

**Acute Toxicity/Target Organ Information**

**A. General Product/Component 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 LD50/LC50**

**Epidemiology**

No data available for product.

**Carcinogenicity**

**A. General Product/Component 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 Listings**

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

**Teratogenicity/Reproductive Effects**

No data available for the product as a whole. Review of information on components indicates no components at greater than 1.0% have teratogenic effects.

**Material Name**  
Quaker State HD 10W Motor Oil

**Page : 5**  
**Issue Date: 11/04/1994**  
**MSDS No.: QS-021**

**Neurotoxicity**

No data available on this product as a whole. Excessive exposure to the oil mist and vapors may cause respiratory tract irritation.

**Mutagenicity**

No data available on this product as a whole. Review of information on components indicates no components at greater than 1.0% have mutagenic effects.

**Other Information**

Persons with skin or respiratory conditions may be more sensitive to product.

**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.

**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**

**DOT Information**

**Shipping Name:** Not regulated as a hazardous material

**Hazard Class:** None

**UN/NA #:** None

**Packing Group:** None

**Label(s) Required**

**Additional Shipping Information**

**International Transportation Regulations**

Not regulated as dangerous goods.

**Section 15 - REGULATORY INFORMATION**

**US Federal Regulations**

**A. General Product Information**

All components of this product are listed on the U.S. EPA TSCA Inventory.



SPECTRUM ACQUISITIONS, INC.  
P.O. BOX 130  
FULGHUM STREET  
HORNSBY, TN 38044  
(901)658-9050

MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

PRODUCT TRADE NAME: Husqvarna 50:1 Two-Cycle Engine Oil  
REVISION DATE: 2/11/91  
INFORMATION/EMERGENCY  
PHONE NO: (901)658-9050  
CHEMICAL FAMILY: Petroleum Lubricating Oil

SECTION 2 - HAZARDOUS INGREDIENTS

<u>NAME</u>	<u>REGULATORY AGENCY</u>	<u>EXPOSURE LIMIT</u>
Complex Mixtrue of Petroleum Base Stocks.	OSHA	5mg/m3 Mist

See Section 6, Chronic Effects, for potenital over-exposure hazard.

SECTION 3 - PHYSICAL DATA

VAPOR PRESSURE(mmHg): <1  
SPECIFIC GRAVITY: Not Determied  
WATER SOLUBILITY: Negligible  
BOILING POINT: 600°F+  
VAPOR DENSITY (Air=1) >5  
EVAPORATION RATE(BUAC=1) <1  
ODOR: Mild Petroleum Odor  
APPEARANCE: Dark Blue Colored Liquid

SECTION 4 - FIRE AND EXPLOSION HAZARDS

FLASH POINT: 475°  
UPPER FLAMMABLE LIMIT: 7%  
LOWER FLAMMABLE LIMIT: .09%  
EXTINGUISHING MEDIA(S): Water Fog, Chemical Foam, Dry  
Chemical Powder, CO<sub>2</sub>  
SPECIAL FIREFIGHTING  
PROCEDURES: Cool exposed containers with water  
spray. Avoid breathing fumes.  
UNUSUAL FIRE &  
EXPLOSION HAZARDS: Pressure increase in over heated  
closed containers. Cool containers  
with water spray.

## SECTION 5 - REACTIVITY DATA

STABILITY:	Stable
INCOMPATIBILITY:	Avoid strong oxidants.
POLYMERIZATION:	Will not occur.
THERMAL DECOMPOSITION:	Partial burning produces fumes, smoke and carbon monoxide.

## SECTION 6 - HEALTH HAZARD DATA

INHALATION:	Inhalation of fumes may result in dizziness, headache and respiratory irritation.
EYE CONTACT:	Contact with eyes may cause minimal irritation.
SKIN CONTACT:	Mild irritation may occur with prolonged or repeated contact.
INGESTION:	Slightly toxic. Pulmonary aspiration hazard if vomiting occurs.
TLV:	5mg/m <sup>3</sup> as mist. ACGIH 1984-85
CHRONIC EFFECTS:	Product has a low order of acute oral toxicity. Ingredients of this product are not listed as potential carcinogens in N.T.P. <u>Annual Report on Carcinogens</u> , I.A.R.C. <u>Monographs</u> , or by O.S.H.A. HCS (g) (2) (vii).

## Emergency First Aid Procedures

SKIN:	Wash skin with soap and warm water. Wash clothing before re-use.
EYE:	If splashed into eyes flush eyes with clear water for five(5) minutes.
INHALATION:	If overcome by fumes remove from exposure immediately.
ORAL:	If ingested, do not induce vomiting. Call a physician.

## SECTION 7 - SPECIAL PROTECTION INFORMATION

VENTILATION PROCEDURE:	Ventilate as needed to comply with exposure limit.
GLOVES PROTECTION:	Use impervious gloves to avoid repeated/prolonged skin contact.
EYE PROTECTION:	Use goggles/face shield to avoid eye contact.
WORK/HYGENIC PRACTICES:	If clothing becomes contaminated, change to fresh clean clothing.

Do not wear until thoroughly  
laundered.

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SECTION 8 - SPILL OR LEAK PROCEDURES

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SPILL PROCEDURES:	Remove ignition sources. Recover liquid. Add absorbent to spill area. Ventilate confined spaces. Advise authorities if product enters sewers, etc.
WASTE DISPOSAL:	Assure conformity with applicable disposal regulations. Dispose of absorbed material at approved waste site.

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SECTION 9 - SPECIAL PRECAUTIONS

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HANDLING AND STORAGE PRECAUTIONS:	Keep containers closed when not in use. Do not handle or store near heat or flames. Use chemical resistant gloves and apron.
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The Data presented herein is based upon tests and information which we believe to be reliable. However, users should make their own investigations to determine the suitability of the information for their particular purpose.

FOR CHEMICAL EMERGENCY  
SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT  
CALL CHEMTREC-DAY OR NIGHT  
\*800-424-9300  
TOLL-FREE IN THE CONTINENTAL U.S.  
\*ADD LONG-DISTANCE ACCESS NUMBER IF REQUIRED  
483-7616 IN DISTRICT OF COLUMBIA  
FOR CALLS ORIGINATING OUTSIDE THE CONTINENTAL U.S.:  
202-483-7616-WASHINGTON, DC, COLLECT  
ALL CALLS ARE RECORDED



**SKIN**

In case of skin contact, remove any contaminated clothing and wash skin thoroughly with soap and water.

**INHALATION**

Vapor pressure is very low. Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor from hot product, immediately remove from exposure and call a physician. If breathing is irregular or has stopped, start resuscitation; administer oxygen, if available. If overexposed to oil mist, remove from further exposure until excessive oil mist condition subsides.

**INGESTION**

If ingested, DO NOT induce vomiting; call a physician immediately.

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**D. FIRE AND EXPLOSION HAZARD INFORMATION**


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**FLASH POINT (MINIMUM)**  
445+ (COC)

**AUTOIGNITION TEMPERATURE**  
Greater than 600 F

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION**

Health	Flammability	Reactivity	BASIS
1	1	0	Recommended by Westland

**HANDLING PRECAUTIONS**

Use product with caution around heat, sparks, pilot lights, static electricity, and open flame.

**FLAMMABLE OR EXPLOSIVE LIMITS (APPROXIMATE PERCENT BY VOLUME IN AIR)**

Estimated values: Lower Flammable Limit 0.9% Upper Flammable Limit 7%

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**EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES**

Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fire involving this type of product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.

The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials". Eighth Edition (1984):

Use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to keep fire-exposed containers cool. Water spray may be used to flush spills away from exposures. Minimize breathing gases, vapor, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

---

#### DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS

Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

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#### "EMPTY" CONTAINER WARNING

"Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION: THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. For work on tanks refer to Occupational Safety and Health Administration regulations. ANSI Z49.1 and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

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#### E. HEALTH AND HAZARD INFORMATION

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##### VARIABILITY AMONG INDIVIDUALS

Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

##### EFFECTS OF OVEREXPOSURE (SIGNS AND SYMPTOMS OF EXPOSURE)

Prolonged or repeated skin contact may cause skin irritation.

##### NATURE OF HAZARD AND TOXICITY INFORMATION

In accordance with the current OSHA Hazard Communication Standard criteria, this product does not require a cancer hazard warning. This is because the product is formulated from base stocks which are severely hydrotreated, severely solvent extracted, and/or processed by mild hydrotreatment and extraction. Alternatively, it may consist of components not otherwise affected by IARC criteria, such as vacuum distillates or synthetically derived materials, and as such is not characterized by current IARC classification criteria.

Prolonged or repeated skin contact with this product tends to remove skin oils possibly leading to irritation and dermatitis. However, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.

Continuous contact with used motor oil has caused skin cancer in animal tests.

Product contacting the eyes may cause eye irritation.

Product has a low order of acute oral and dermal toxicity, but minute amounts aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

This product is judged to have an acute oral LD50 (rat) greater than 5 g/kg of body weight, and an acute dermal LD50 (rabbit) greater than 3.16 g/kg of body weight.

PRE-EXISTING MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE  
None Recognized

#### F. PHYSICAL DATA

The following data are approximate or typical values and should not be used for precise design purposes.

BOILING RANGE Not Determined	VAPOR PRESSURE Less than 0.01 mm Hg @ 20 C
SPECIFIC GRAVITY 0.9200	VAPOR DENSITY (AIR = 1) Greater than 5
MOLECULAR WEIGHT Not Determined	PERCENT VOLATILE BY VOLUME Negligible from open container in 4 hours @ 38 C (100 F)
pH Essentially Neutral	EVAPORATE RATE @ 1 ATM. AND 25 C (77 F) (n-BUTYL ACETATE = 1) Less than 0.01
FOUR, CONGEALING OR MELTING POINT 0 F Pour Point by ASTM D97	SOLUBILITY IN WATER @ ATM. AND 25 C (77F) Negligible: less than 0.1%
VISCOSITY 151 cSt @ 40 C	

#### G. REACTIVITY

This product is stable and will not react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite.

#### H. ENVIRONMENTAL INFORMATION

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED.**

Recover free product. Add sand, earth, or other suitable absorbent to spill area. Minimize skin contact. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas. Assure conformity with applicable governmental regulations.

REPORTABLE QUANTITY (RQ), EPA REGULATION 40 CFR 302

Not applicable

TOXIC CHEMICAL RELEASE REPORTING, EPA REGULATION 40 CFR 372

Not applicable

**EPA HAZARD CLASSIFICATION CODE:**

Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactive Hazard	Not Applicable XXX
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**I. PROTECTION AND PRECAUTIONS**


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**VENTILATION**

Use local exhaust to capture vapor, mists or fumes, if necessary. Provide ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air. Use explosion-proof equipment. No smoking or open lights.

**RESPIRATORY PROTECTION**

Use supplied-air respiratory protection in confined or enclosed spaces, if needed.

**PROTECTIVE GLOVES**

Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

**EYE PROTECTION**

Use splash goggles or face shield when eye contact may occur.

**OTHER PROTECTIVE EQUIPMENT**

Use chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing which could result in prolonged or repeated skin contact.

**WORK PRACTICES/ENGINEERING CONTROLS**

Keep containers and storage containers closed when not in use. Do not store near heat, sparks, flame or strong oxidants.

**PERSONAL HYGIENE**

Minimize breathing vapor, mist or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before reuse. Remove contaminated shoes and thoroughly clean before reuse; discard if oil-soaked. Cleanse skin thoroughly

after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water.

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## J. TRANSPORTATION INFORMATION

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### TRANSPORTATION INCIDENT INFORMATION

For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Emergency Response Guidebook for Hazardous Materials Incidents. DOT P 5800.3.

### DOT IDENTIFICATION NUMBER

Not Applicable

The information and recommendations contained herein are, to the best of Westland's knowledge and belief, accurate and reliable as of the date issued. Westland does not warrant or guarantee their accuracy or reliability, and Westland shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use.

The Environmental Information included under Section H hereof as well as the Hazardous Materials Identification System (HMIS) and National Fire Protection Association (NFPA) ratings have been included by Westland Oil Company, Inc., in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with Westland's interpretation of the available data.

### FOR ADDITIONAL INFORMATION ON HEALTH EFFECTS CONTACT:

Westland Oil Company, Inc.  
2740 Valleyview Dr.  
Shreveport, LA 71148  
(318)-688-1300

### FOR OTHER PRODUCT INFORMATION CONTACT:

Specialty Oil Company, Inc.  
2740 Valleyview Dr.  
Shreveport, LA 71148  
(318)-687-8000

1 JOHS 979  
S.C. JOHNSON & SON, INC.  
DEEP WOODS OFF! FOR SPORTSMEN INSECT REPELLENT V  
7408D51-2  
03/14/94  
JOHNSON WAX

Material Safety Data Sheet

S.C. Johnson Wax Emergency Medical Phone: (800) 228-5635 Ext 092  
1525 Howe Street Informational Contact: Terry A. Meyers  
Racine, Wisconsin 53403 Phone: (800) 725-6737

\*\*\*\*\* Section I - Product Identification \*\*\*\*\*

	HMIS RATING	NFPA RATING
4=Very High		
3=High		
2=Moderate	HEALTH: 1	HEALTH:
1=Slight	FLAMMABILITY: 4	FLAMMABILITY:
0=Insignificant	REACTIVITY: 0	REACTIVITY:

PRODUCT NAME: DEEP WOODS OFF! FOR SPORTSMEN INSECT REPELLENT V  
PRODUCT NUMBER: 7408D51-2  
SERIAL NUMBER: 001  
ISSUE DATE: 03/14/94  
SUPERCEDES DATE: NA

\*\*\*\*\* Section II - Ingredient Information \*\*\*\*\*

WEIGHT %	INGREDIENT AND EXPOSURE LIMIT
< 1.00	Other Isomers Exposure Limit: NE
2-15	Propane, Isobutane, n-Butane (CAS#106-97-8, 75-28-5, 74-98-6) Exposure Limit: 800 PPM ACGIH\OSHA TWA NOT ESTABLISHED 1000 PPM OSHA PEL
40	D,D-Diethyl-meta-toluamide (DEET) (CAS#134-62-3) Exposure Limit: NOT ESTABLISHED
50-60	Ethyl Alcohol (CAS#64-17-5) Exposure Limit: 1000 PPM ACGIH\OSHA TWA

There are no ingredients subject to the reporting requirements under California's Proposition 65.

All components of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

\*\*\*\*\* Section III - Physical Data \*\*\*\*\*

APPEARANCE\ODOR: Dispensed as a spray mist with citrus odor  
VAPOR PRESSURE (mm Hg): ND  
SOLUBILITY IN WATER: Appreciable  
FREEZING POINT (F): NA  
pH: NA  
SPECIFIC GRAVITY (H2O=1): 0.82  
PERCENT VOLATILE BY VOLUME (%): NA  
VAPOR DENSITY (Air=1): ND  
BOILING POINT (F): ND  
EVAPORATION RATE (Butyl Acetate=1): NA

\*\*\*\*\* Section IV - Fire and Explosion Information \*\*\*\*\*

S.C. JOHNSON & SON, INC.

DEEP WOODS OFF! FOR SPORTSMEN INSECT REPELLENT V

7408051-2

03/14/94

FLASH POINT (F) (Method Used): under 20(TCC) (Propellant)

FLAMMABLE LIMITS: ND

EXTINGUISHING MEDIA: Foam, CO2, Dry Chemical, Water Fog.

SPECIAL FIREFIGHTING PROCEDURES: Normal fire fighting procedures may be used. Fight fire from maximum distance or protected area. Cool and use caution when approaching or handling fire-exposed containers. Fire fighters should wear self-contained breathing apparatus and protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS: No special hazards known.

\*\*\*\*\* Section V - Health Hazard Data \*\*\*\*\*

PRIMARY ROUTE OF ENTRY: Eye contact. Ingestion.

SIGNS AND SYMPTOMS: Direct contact of product with eyes can cause irritation. Product may cause distress and illness if taken internally.

FIRST AID PROCEDURES: Flush eyes with water for 15-20 minutes. If irritation persists, seek medical aid. If product is swallowed, seek medical aid at once.

\*\*\*\*\* Section VI - Reactivity Data \*\*\*\*\*

STABILITY-CONDITIONS TO AVOID: None known

INCOMPATIBILITY: None known

HAZARDOUS DECOMPOSITION PRODUCTS: When exposed to fire, produces normal products of combustion.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS POLYMERIZATION-CONDITIONS TO AVOID: None known

\*\*\*\*\* Section VII - Spill or Leak Procedures \*\*\*\*\*

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Eliminate all ignition sources. Rinse affected area thoroughly with water.

WASTE DISPOSAL INFORMATION: Recycle empty aerosol can to nearest steel recycling center. Use up package or give to someone who can.

\*\*\*\*\* Section VIII - Special Protection Information \*\*\*\*\*

RESPIRATORY PROTECTION: No special requirements under normal use conditions.

VENTILATION: General room ventilation adequate.

PROTECTIVE GLOVES: No special requirements under normal use conditions.

EYE PROTECTION: No special requirements under normal use conditions.

OTHER PROTECTIVE MEASURES: Use good personal hygiene practices.

\*\*\*\*\* Section IX - Special Precautions \*\*\*\*\*

PRECAUTIONARY LABELING: CAUTION: Harmful if swallowed. Causes eye irritation. Avoid contact with eyes and lips. May cause skin reaction in rare cases.

PRECAUTIONARY LABELING (cont.): Do not expose treated surfaces near fire or flame until alcohol has evaporated. Flammable! Contents under pressure. Do not use near fire, heated surfaces, sparks or flame. See Section X.

OTHER HANDLING AND STORAGE CONDITIONS: Keep out of reach of children.

\*\*\*\*\* Section X - Additional Information \*\*\*\*\*

1 JOHS

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S.C. JOHNSON & SON, INC.

DEEP WOODS OFF! FOR SPORTSMEN INSECT REPELLENT V

7408D51-2

03/14/94

ADDITIONAL INFORMATION: NFPA 30B Level 2 Store away from heat or flame in an area inaccessible to children.

\*\*\*\*\* Section XI - Transportation Information \*\*\*\*\*

DOT CLASS: ORM-D.

DOT #: NA

SHIPPING NAME: Insecticides or insect repellents, NOI, other than poison.

DOT NOTES: Consumer Commodity.

SECTIONS OF MSDS WITH CHANGES: NA

EPA REGISTRATION #: 4822-398

\*\*\*\*\*  
The information herein is given in good faith. No warranty, expressed or implied is made. Any use of these data and information must be determined by the user to be in accordance with applicable Federal, State and local laws and regulations. The information contained in this form is confidential and is submitted solely for your organization's internal use. R-106 (Rev 5 - 10/90)

# MATERIAL SAFETY DATA SHEET

GENIUM PUBLISHING CORPORATION  
 1145 CATALYN STREET  
 SCHENECTADY, NY 12303-1836 USA  
 (518) 377-8855



No. 469

FUEL OIL NO. 2

Date October 1981

## SECTION I. MATERIAL IDENTIFICATION

MATERIAL NAME: FUEL OIL NO. 2  
 DESCRIPTION: Mixture of petroleum hydrocarbons; a distillate oil of low sulfur content.  
 OTHER DESIGNATIONS: ASTM D396, GE Material D27B1A, CAS #068-476-302  
 MANUFACTURER: Available from many suppliers, including:  
 AMOCO Oil Co.  
 200 East Randolph Drive  
 Chicago, Illinois 60601

## SECTION II. INGREDIENTS AND HAZARDS

Fuel Oil No. 2  
 Complex mixture of paraffinic, olefinic, naphthenic, and aromatic hydrocarbons  
 Sulfur content  
 Benzene\*\*  
 \*Current OSHA standard and ACGIH (1981) TLV  
 \*\*A low benzene level reduces carcinogenic risk. Fuel oils are exempted under the benzene standard (29 CFR 1910.1028)

x	HAZARD DATA
<0.5 <100 ppm	8-hr TWA 5 mg/m <sup>3</sup> (mineral oil mist)*

## SECTION III. PHYSICAL DATA

Boiling point range, deg F, \_\_\_\_\_ Ca 340-675 Specific gravity (H<sub>2</sub>O=1) --- <0.876  
 Solubility in water \_\_\_\_\_ negligible Pour point, deg C \_\_\_\_\_ below -6  
 Viscosity at 38 C, cSt \_\_\_\_\_ 2.0-3.6

Appearance and Odor: Clear, bright liquid with a mild petroleum odor.

## SECTION IV. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temp.	Flammability Limits In Air	LOWER	UPPER
			0.6	7.5
100F min (TCC)	257 C (495F)	% by volume		

Extinguishing Media: Dry chemical, carbon dioxide, foam, water spray. Use a water spray to cool fire exposed containers. Use a smothering technique for extinguishing fire of this combustible liquid. Do not use a forced water stream directly on oil fire as this will only scatter the fire. Material is an OSHA Class II combustible liquid. Firefighters should wear self-contained breathing apparatus and full protective clothing.

## SECTION V. REACTIVITY DATA

This is a stable material in closed containers at room temperature under normal storage and handling conditions. It does not undergo hazardous polymerization. Incompatible with strong oxidizing agents; heating greatly increases fire hazard. Thermal-oxidative degradation may yield various hydrocarbons and hydrocarbon derivatives (partial oxidation products), CO<sub>2</sub> and CO and SO<sub>2</sub>.

**SECTION VI. HEALTH HAZARD INFORMATION**

TLV 5 mg/m<sup>3</sup> oil (mist) (See Sect II)

Inhalation of excessive concentrations of vapor or mist can be irritating to the respiratory passages and can cause the following symptoms: headache, dizziness, nausea, vomiting, and loss of coordination. Prolonged or repeated skin contact may cause irritation of the hair follicles and block the sebaceous glands. This produces a rash of acne pimples and spots, usually on the arms and legs. (Good personal hygiene will prevent this).

Chemical pneumonitis may result when ingestion occurs and oil is aspirated in the lungs.

**FIRST AID:**

- Eye Contact: Flush thoroughly with running water for 15 min. including under eyelids.
  - Skin Contact: Remove contaminated clothing. Wipe excess oil off with a dry cloth. Wash affected area well with soap and water.
  - Inhalation: Remove to fresh air. Restore and/or support breathing as required.
  - Ingestion: Do not induce vomiting.
- Seek medical assistance for further treatment, observation and support.

**SECTION VII. SPILL, LEAK, AND DISPOSAL PROCEDURES**

Notify safety personnel of leaks or spills. Remove sources of heat or ignition. Provide adequate ventilation. Clean-up personnel to use protection against liquid contact and vapor or mist inhalation. Contain spill by diking. Small spills can be contained by using absorbants, such as rags, straw, polyurethane foam, activated carbon, and sand. Clean up spills promptly to reduce fire or vapor hazards.

DISPOSAL: May be disposed of by a licensed waste disposal company, or by controlled incineration or burial in an approved landfill.

Follow Federal, State and Local regulations. Report large oil spills.

**SECTION VIII. SPECIAL PROTECTION INFORMATION**

Provide adequate ventilation where operating conditions (heating or spraying) may create excessive vapors or mists. Use explosion proof equipment. Provide approved respiratory apparatus for nonroutine or emergency use. Use an approved filter & vapor respirator when vapor/mist concentrations are high. Wear protective rubber gloves and chemical safety glasses where contact with liquid or high mist conc. may occur. Additional suitable protective clothing may be required depending on working conditions. An eye-wash fountain and washing facilities to be readily available near handling and use areas.

Laundry soiled or contaminated clothing before reuse (at least weekly laundering of work clothes is recommended).

**SECTION IX. SPECIAL PRECAUTIONS AND COMMENTS**

Store in closed containers in a cool, dry, well-ventilated area away from sources of open flame, heat, strong oxidizing agents, and ignition. Protect containers from physical damage. Use non sparking tools and explosion-proof electrical equipment. Prevent static electric sparks.

Avoid prolonged skin contact and breathing of vapors or mists. No smoking in areas of use. Follow good hygienic practice in the use of this material. Do not wear oil contaminated clothing. Do not put oily rags into pockets. Wash exposed skin areas several times a day with soap and warm water when working with this material.

DOT Classification: COMBUSTIBLE LIQUID

DATA SOURCE(S) CODE: 1,6,7,12

APPROVALS: MIS  
CRD *J.M. Niles*

Industrial Hygiene and Safety *DW 10-12-81*

judgments as to the suitability of information herein for purchaser's purposes are necessary purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Chem-Tech Publishing Corporation assumes no warranty, makes no representations and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

34310019 UNLEADED GASOLINE  
Revised 19-NOV-1994 Printed 13-JAN-1995

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

Corporate MSDS Number : DU001044

Tradenames and Synonyms

AUTOMOTIVE UNLEADED GASOLINE  
PETROL  
MOTOR SPIRITS  
GASOLINE - UNLEADED  
CC0379

Company Identification

MANUFACTURER/DISTRIBUTOR  
PURCHASED MATERIAL

PHONE NUMBERS

Transport Emergency : CHEMTREC: 1-800-424-9300  
Medical Emergency : 1-800-441-3637

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
GASOLINE	8006-61-9	100
*BENZENE	71-43-2	0.1-4.9
*ETHYLBENZENE	100-41-4	~2
*CUMENE	98-82-8	~1
*PSEUDOCUMENE	95-63-6	~2
*METHYL T-BUTYL ETHER	1634-04-4	<15
*XYLENES	1330-20-7	~12
*TOLUENE	108-88-3	~15

\* Regulated as a Toxic Chemical under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

## Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens. A "P" indicates a proposed carcinogen.

Material	IARC	NTP	OSHA	ACGIH
GASOLINE	X			
BENZENE	X	X	X	X

Du Pont controls the following materials as potential carcinogens:  
 BENZENE.

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 FIRST AID MEASURES  
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## First Aid

## INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

## SKIN CONTACT

In case of contact, immediately wash skin with soap and water. Wash contaminated clothing before reuse.

If irritation develops, consult a physician.

## EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

## INGESTION

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

## Notes to Physicians

Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400 mL water and mix thoroughly. Administer 5 mL/kg, or 350 mL for an average adult.

Minute amounts aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

Remove source of heat, sparks, flame, impact, friction or electricity. Dike spill. Prevent material from entering sewers, waterways, or low areas.

#### Accidental Release Measures

Several components of gasoline are subject to the Superfund reportable discharge requirements if spilled. Concentrations of gasoline components with a Superfund Reportable Quantity (RQ) will depend on vendor formulations.

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#### HANDLING AND STORAGE

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##### Handling (Personnel)

Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling.

For use as a motor fuel only. Do not use as a cleaning solvent, or thinner, or for other non-motor fuel uses.

##### Handling (Physical Aspects)

Ground container when pouring. Use of non-sparking and explosion-proof equipment may be necessary depending on type of operation. Keep away from heat, sparks and flames.

##### Storage

Keep container in a cool place. Do NOT expose to direct sunlight. Store in a well ventilated place. Keep container tightly closed. Store in accordance with National Fire Protection Association recommendations.

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#### EXPOSURE CONTROLS/PERSONAL PROTECTION

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##### Engineering Controls

Keep container tightly closed.

Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits.

E. I. du Pont de Nemours and Company

UNLEADED GASOLINE

MSDS NUMBER: 34310019\_40

ISSUE DATE: 95/01/13

PAGE 7

PEL (OSHA)  
 TLV (ACGIH)  
 AEL \* (Du Pont)

: 50 ppm, 245 mg/m<sup>3</sup>, 8 Hr. TWA, Skin  
 : 50 ppm, 246 mg/m<sup>3</sup>, 8 Hr. TWA, Skin  
 : None Established

PSEUDOCUMENE  
 PEL (OSHA)  
 TLV (ACGIH)  
 AEL \* (Du Pont)

: 25 ppm, 125 mg/m<sup>3</sup>, 8 Hr. TWA  
 : 25 ppm, 123 mg/m<sup>3</sup>, 8 Hr. TWA  
 : None Established

METHYL T-BUTYL ETHER  
 PEL (OSHA)  
 TLV (ACGIH)

: None Established  
 : 40 ppm, 144 mg/m<sup>3</sup>, 8 Hr. TWA  
 Notice of Intended Changes (1994-1995)  
 40 ppm, 144 mg/m<sup>3</sup>, 8 Hr. TWA, A3

AEL \* (Du Pont)  
 WEEL (AIHA)

: None Established  
 : 100 ppm, 8 Hr. TWA

XYLENES

PEL (OSHA)  
 TLV (ACGIH)

: 100 ppm, 435 mg/m<sup>3</sup>, 8 Hr. TWA  
 : 100 ppm, 434 mg/m<sup>3</sup>, 8 Hr. TWA  
 STEL 150 ppm, 651 mg/m<sup>3</sup>

AEL \* (Du Pont)

: 100 ppm, 8 Hr. TWA  
 150 ppm, 15 minute TWA

TOLUENE

PEL (OSHA)

: 200 ppm, 8 Hr. TWA  
 300 ppm, Ceiling  
 500 ppm - 10 Min. Max.

TLV (ACGIH)

: 50 ppm, 188 mg/m<sup>3</sup>, 8 Hr. TWA, Skin

AEL \* (Du Pont)

: 50 ppm, 8 & 12 Hr. TWA

\* AEL is Du Pont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

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PHYSICAL AND CHEMICAL PROPERTIES

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Physical Data

Boiling Point : 29-225 C (84-437 F)  
 Vapor Pressure : 275-475 mm Hg @ 20 C (68 F)  
 % Volatiles : 100% by Volume  
 Solubility in Water : May be slightly soluble  
 Odor : Gasoline  
 Form : Liquid  
 Color : Red-dyed, pink, or colorless to light yellow  
 Specific Gravity : 0.70-0.77 (H<sub>2</sub>O=1)

Hazard Class : 3 (IMO 3.1)  
UN No. : UN1203  
DOT/IMO Label : FLAMMABLE LIQUID  
Packing Group : II

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REGULATORY INFORMATION  
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U.S. Federal Regulations

TSCA Inventory Status : Reported/Included.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes  
Chronic : Yes  
Fire : Yes  
Reactivity : No  
Pressure : No

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OTHER INFORMATION  
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NFPA, NPCA-HMIS

NFPA Rating  
Health : 1  
Flammability : 3  
Reactivity : 0

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The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : Du Pont  
Address : Corporate MSDS Office - HR  
Barley Mill Plaza, P14-2150  
Wilmington, DE 19880-0014  
Telephone : 302-992-6704

# Indicates updated section.

End of MSDS

## VI. REACTIVITY DATA

Stability: Stable X Unstable \_\_\_\_\_  
Conditions to avoid: NA  
Incompatibility: Strong oxidizing materials  
Hazardous decomposition products: Thermal decomposition may yield carbon monoxide and/or carbon dioxide.  
Hazardous polymerization: May occur \_\_\_\_\_ Will not occur X

## VII. SPILL OR LEAK PROCEDURES

Spill Response Procedures  
Absorb small quantities with sand, earth, sawdust. Large quantities pump into tank.  
Waste Disposal Method  
Incinerate liquid, bury saturated absorbent in land fill. Dispose of in accordance with local, state and federal regulations.

## VIII. SPECIAL HANDLING INFORMATION

Ventilation: Sufficient to keep solvent vapor less than TLV.  
Respiratory Protection: Advised when concentrations exceed TLV.  
Protective Gloves: Advised to prevent possible skin irritation.  
Eye Protection: Approved eye protection to safeguard against potential eye contact, irritation or injury.  
Other Protective Equipment: None required.

## IX. SPECIAL PRECAUTIONS

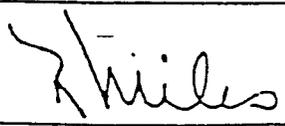
Keep from open flame, do not take internally. Avoid excessive inhalation of spray particles. Keep from children.

## X. TRANSPORTATION DATA

Domestic Surface  
Description: Petroleum Distillates N.O.S.  
Hazard Class: Combustible Liquid  
ID No.: UN 1268  
Packaging Group: III  
Label Required: NONE, for containers less than 100 Gallons  
  
Domestic Air  
Description: Petroleum Distillates N.O.S. (Stoddard Solvent)  
Hazard Class: 3 UN 1268 PGIII  
Label Required: Flammable Liquid

## XI. REGULATORY INFORMATION

All ingredients for this product are listed on the TSCA inventory.  
SARA Title III chemicals: None  
California Prop 65 chemicals: None  
CERCLA reportable quantity: None  
RCRA hazardous waste no: D001 (ignitable)

SIGNATURE: R. Miles  TITLE: Technical Director  
REVISION DATE: October 1993 SUPERSEDES: August 1992

A = Not applicable      NDA = No data available      < = Less than      > = More than

We believe the statements, technical information and recommendations contained herein are reliable. However, the data is provided without warranty, expressed or implied. It is the users responsibility both to determine safe conditions for use of this product and assume loss, damage or expense.

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.

Section 4 - FIRST AID MEASURES

Eyes

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

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.

Ingestion

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

Inhalation

Remove to fresh air. If not breathing, give mouth to mouth resuscitation. If breathing is difficult, give oxygen. Call a physician.

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 deg F (204 deg C)

Method Used  
Cleveland Open Cup

UFL  
Not determined

LFL  
Not determined

Auto Ignition  
Not determined

Flammability Classification  
IIIB

Rate of Burning  
Not determined

General Fire Hazards

This product is combustible at high temperatures.

Hazardous Combustion Products

Carbon dioxide, carbon monoxide, oxides of sodium, calcium, magnesium, phosphorus, and zinc.

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. Use water spray to cool fire-exposed containers and as a protective screen. Do not point solid water stream directly into burning oil to avoid spreading.

Continued on next page...

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

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.

General: Use good hygiene when handling petroleum product.

### Section 9 - PHYSICAL & CHEMICAL PROPERTIES

Appearance	: Light amber	Odor	: Mild hydrocarbon
Physical State	: Liquid	pH	: Not applicable
Vapor Pressure	: Negligible	Vapor Density	: Not determined
Boiling Point	: Not determined	Freezing Point	: Not determined
Melting Point	: Not determined	Solubility (H2O)	: Negligible in water
Specific Gravity	: 0.87 to 0.88	Particle Size	: Not applicable
Softening Point	: Not determined	Evaporation Rate	: Not determined
Viscosity	: approx. 210 SUS @ 100 F	Bulk Density	: Not determined
Percent Volatile	: Negligible	Molecular Weight	: Mixture
Additional Properties	None		

### Section 10 - CHEMICAL STABILITY & REACTIVITY INFORMATION

Chemical Stability: Stable

Conditions to Avoid: Avoid excessive heat and all sources of ignition.

Incompatibility  
Strong oxidizing agents (peroxides, chlorine, strong acids).

Hazardous Decomposition Products  
At thermal decomposition temperatures carbon dioxide, carbon monoxide, oxides of calcium, magnesium, phosphorus, and zinc.

Hazardous Polymerization  
Hazardous polymerization will not occur.

### Section 11 - TOXICOLOGICAL INFORMATION

#### Acute Toxicity/Target Organ Information

##### A. General Product/Component 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 LD50/LC50

#### Epidemiology

No data available for product.

#### Carcinogenicity

##### A. General Product/Component 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 Listings

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

#### Teratogenicity/Reproductive Effects

No data available for the product as a whole. Review of information on components indicates no components at greater than 1.0% have teratogenic effects.

**B. Component Information**

None of this product's 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 Information**

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 Information**

None of this product's components are listed on the Canadian Controlled Product Ingredient Disclosure List.

**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.

Information Preparation: 11/04/94

**Key/Legend**

NA = Not Applicable; ND = Not Determined; Y = Yes; N = No

Contact Person: D. W. Cralley - Corporate  
Manager, Health and Safety

Phone: (814)676-7676

End of MSDS #QS-021

OLD LIMIT VALUE (TLV-TWA)

Not available

LC<sub>50</sub>

Not available

AMMONIUM NITRATE .... P. 2

OF EXPOSURE WHEN: HAZARDOUS	Allergen, possible faintness & lowered blood pressure. Also see 'Ingested'.
CONTACT WITH EYES	Irritation
CONTACT WITH SKIN	Irritation
SYMPTOMS TESTED	Dizziness, cramps, vomiting, possible methemoglobinemia, weakness, depression, headache
SAFETY AND FIRST AID PROCEDURES RECOMMENDATION	Remove to fresh air. If not breathing, give artificial respiration. Keep warm & at rest. Obtain medical attention.
EMERGENCY TREATMENT	Flush eyes with running water for at least 20 minutes, holding eyelids open. Obtain medical attention.
CONTAMINATED CLOTHING	Remove contaminated clothing. Flush affected area with running water for 20 minutes. If irritation persists, obtain medical attention.
INGESTION	If conscious; give large amounts of water or milk to induce vomiting. Obtain medical attention.

Section VI Special Protection Information	
WORKING CONDITIONS REQUIREMENTS	Local ventilation preferred
RESPIRATORY PROTECTION	Air purifying respirator approved by NIOSH/MSHA equipped with dust, mist, fume cartridges, if necessary
PROTECTIVE GLOVES	Impervious gloves
PROTECTIVE EQUIPMENT	EYE PROTECTION Safety glasses Protective clothing as required

Section VII Special Requirements	
PRECAUTIONS IN HANDLING AND STORAGE	Protect containers against physical damage. Store in cool dry well-ventilated building, preferably noncombustible equipped with automatic sprinkler protection. Floor drains & recesses should be plugged or eliminated to prevent entrapment of flowing molten nitrate during fire. Separate from Incompatibles (Sec IV) acids, corrosive liquids, organic materials, Chlorates, Sulphur, powdered metals, charcoal, coke, sawdust

Section VIII Spill or Leak Procedures	
ACTION TO BE TAKEN IN EVENT OF RELEASE. IN ALL CASES APPLICABLE GOVERNMENT REGULATIONS APPLY IF SPILL IS SIGNIFICANT	Stop & contain leak or spill. If in solid form or solution, absorb in earth or sand and shovel into containers for disposal. If contamination has not occurred, collect for reclamation.
ENVIRONMENTAL EFFECTS	Contaminated water is toxic to children & cattle. Toxic to fish at low concentrations (4.2 mg/l); aesthetic critical concentration (0.5 mg/l); fish toxicity critical concentrations (300 mg/l); used as fertilizer on land.
HAZARDOUS MATERIALS HANDLING PROCEDURES	Remove slowly into a large container of water. Add Soda Ash slightly by stirring. After 24 hours, decant or siphon into another container. Neutralize with HCl.
WASTE DISPOSAL	Consult federal, provincial & local regulations on chemical waste disposal. May be possible to neutralize, flush & disperse with large quantities of water. May also be possible to dispose of in a secure sanitary landfill site.

Section IX References	
<p>1. N.I., <u>Dangerous Properties of Industrial Materials</u>, 5th Ed., Van Nostrand Reinhold, 1979.</p> <p>2. <u>Toxic and Hazardous Industrial Chemicals Safety Manual</u>, The International Tech. Info. Inst., Japan, 1979.</p>	

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C-I-L Inc.

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

Not Applicable

EFFECTS OF OVEREXPOSURE

EMERGENCY AND FIRST-AID PROCEDURES

SECTION VI REACTIVITY DATA

STABILITY N/A	UNSTABLE	CONDITIONS TO AVOID
	STABLE	

COMPATIBILITY  
(materials to avoid)

HAZARDOUS  
DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION May Occur	Will Not Occur	CONDITIONS TO AVOID

SECTION VII SPILL OR LEAK PROCEDURES

ACTION TO BE TAKEN  
IF MATERIAL IS  
RELEASED OR SPILLED

Safe for humans to handle

WASTE DISPOSAL METHOD

Any Sewer

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION  
(Specify Type)

Not Applicable

VENTILATION	LOCAL EXHAUST	SPECIAL OTHER
	MECHANICAL (general)	

PROTECTIVE GLOVES

EYE PROTECTION

OTHER  
PROTECTIVE  
EQUIPMENT

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE  
TAKEN IN HANDLING  
AND STORING

Protect from freezing

ADDITIONAL PRECAUTIONS

**SPECIAL FIRE FIGHTING PROCEDURES:** DO NOT fight fire. Isolate area. Evacuate personnel to a safe area. Guard against intruders. Allow fire to burn itself out.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** May detonate with impact or on heating. May explode and throw fragments 1 mile or more if fire reaches cargo. Evacuate all persons, including emergency responders from the area.

\*\*\*\*\*  
**HEALTH HAZARDS**

Shaped Charge Products do not present health hazards in normal handling and use. However, the products are Class A or Class C Explosives and detonation may cause severe physical injury, including death. All explosives are dangerous and must be handled carefully and used following approved safety procedures under the direction of competent, experienced persons in accordance with all applicable Federal, State, and Local Laws, Regulations and Ordinances.

Inhalation of explosive powders may cause nervous system irregularities including headaches and dizziness. May be absorbed through the skin in toxic amounts.

Over exposure to lead may cause adverse effects to the blood forming, nervous, urinary, and reproductive systems including weakness, weight loss, insomnia, constipation, anemia, motor weakness, and encephalopathy. Lead may penetrate the placental barrier and has caused congenital abnormalities in animals. Several animal studies have indicated that high doses of lead may be carcinogenic.

Nitrogen oxides generated during use are skin, eye and respiratory tract irritants.

**CARCINOGENICITY**

None of the components of these materials are listed as a carcinogen by NTP, IARC, or OSHA.

**OTHER SYMPTOMS AFFECTED**

A review of available data does not identify any conditions worsened by exposure to this product.

**FIRST AID**

**INHALATION:**

Not a likely route of exposure. If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably by mouth-to-mouth. If breathing is difficult, give oxygen. Seek Prompt Medical Attention.

**EYE AND SKIN CONTACT:**

Not a likely route of exposure.

**INGESTION:**

Not a likely route of exposure.

**NOTE:** Seek prompt medical attention if detonation caused physical injury.



## Material Safety Data Sheets

Section I		
Manufacturer's Name The Ensign-Bickford Company	Emergency Telephone No. 1-203-658-4411	
Address (Number, Street, City, State, Zip Code) 660 Hopmeadow Street, Simsbury, CT 06070		
Chemical Name & Synonyms NOT A CHEMICAL	Trade Name & Synonyms PRIMACORD <sup>®</sup> DETONATING CORD	
Chemical Family N/A	Formula N/A	C.A.S. Number

Section II - Hazardous Ingredients		
Ingredient PENTAERYTHRITOL TETRANITRATE (PETN)	Percent	
T.L.V.:	P.E.L.:	
Ingredient CYCLOTRIMETHYLENE TRINITRAMINE (RDX)	Percent	
T.L.V.:	P.E.L.:	
Ingredient CYCLOTETRAMETHYLENE TETRANITRAMINE (HMX)	Percent	
T.L.V.:	P.E.L.:	
Ingredient 2,6-BIS(PICRYLAMINO)-3,5-DINITROPYRIDINE (PYX)	Percent	
T.L.V.:	P.E.L.:	

Section V - Health Hazard Data

Threshold Limit Value: NOT ESTABLISHED

Effects of Overexposure

Eye Contact : N/A - NOT A LIKELY ROUTE OF EXPOSURE  
Skin Contact : N/A - NOT A LIKELY ROUTE OF EXPOSURE  
Inhalation: N/A - NOT A LIKELY ROUTE OF EXPOSURE  
Ingestion : N/A - NOT A LIKELY ROUTE OF EXPOSURE

Emergency and First Aid Procedures

Eye Contact : N/A  
Skin Contact : N/A

Inhalation: IF DETONATION FUMES ARE INHALED REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH TO MOUTH. IF BREATHING IS DIFFICULT GIVE OXYGEN. CALL A PHYSICIAN.

Ingestion : N/A

Section VIII - Special Protection Information

Respiratory Protection : NONE

Ventilation

Local Exhaust : N/A

Special : N/A

Mechanical : N/A

Other : N/A

Protective Gloves : NONE

Eye Protection : SAFETY GLASSES

Other Protective Equipment : NONE

Section IX - Special Precautions

Precautions To Be Taken in Handling and Storing, Etc. : TRANSPORTATION AND STORAGE MUST BE IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS

Other Precautions : REFER TO MANUFACTURER'S INSTRUCTIONS AND WARNINGS SUPPLIED WITH PRODUCT.

Data Sheet Prepared By: E.L. STEARNS  
Last Data Sheet Revision

Boron and Tellurium. These materials have the following hazards:

Nitrogen Oxides: Are skin, eye and respiratory system irritants.

Overexposure to Lead compounds may cause abnormal blood forming system function with anemia. Higher exposure may lead to abnormal kidney function with reduced urine volume, abnormal laboratory tests or edema; nervous system effects.

Symptoms may include loss of appetite, anemia; disturbance of sleep and fatigue. Tests of some lead compounds for mutagenic activity in bacterial or mammalian cell cultures have been inconclusive, with positive results in some studies, and negative results in others. Some studies suggest that lead compounds may have developmental toxicity at dosage levels showing maternal toxicity; while some tests

with lead compounds in animals demonstrate reproductive toxicity. DuPont handles lead compounds as potential developmental toxins. Women of childbearing potential should be warned of the risk to the fetus in operations involving direct exposure to lead compounds.

For exposure longer than 8 hours, the OSHA Exposure limit is reduced by this formula:  
Exposure limit (in ug/m<sup>3</sup>) = 400 /hours worked in the day.

Tellurium Oxide has caused adverse liver and kidney effects in laboratory animals. Exposure can lead to a metallic taste in the mouth and a garlic odor on the breath. Studies in laboratory animals have shown adverse effects to the nervous system.

Barium salts cause muscle paralysis, alteration of the hearts electrical activity with irregular pulse, palpitations or inadequate circulation.

Overexposure to Magnesium by inhalation, ingestion, or skin or eye contact may initially include: skin irritation with discomfort or rash; eye irritation with discomfort, tearing, blurring of vision; irritation of mucosal surfaces; or metal fume fever.

Overexposure to Iron Oxide by: Eye contact may initially include; mild eye irritation with

discomfort, tearing, or blurring of vision. Inhalation may initially include; irritation of the upper respiratory passages, with coughing and discomfort; or deposition of iron in the lung tissue resulting in discoloration but without fibrosis or significant symptoms.

Over exposure to Boron and Boron Oxides may cause eye, nose or throat irritation.

Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens. A "P" indicates a proposed carcinogen.

Material	IARC	NTP	OSHA	ACGIH
Lead Azide				X
Lead Styphnate				X

### FIRST AID MEASURES

Get medical attention immediately if explosion causes physical injury. If decomposition fumes are inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

### FIRE FIGHTING MEASURES

Flammable Properties

Detonates when exposed to heat or flame.

Fire and Explosion Hazards:

Hazardous gases/vapors produced in fire are Boron, Iron, Magnesium, Lead and Tellurium compounds, Carbon Monoxide and Nitrogen Oxides. Products are Class A or Class C Explosives (DOT). Will detonate with friction, impact, heat, low level electrical current or electrostatic energy. Detonation produces shrapnel.

Extinguishing Media None

Fire Fighting Instructions

Evacuate personnel to a safe area. Do not fight fire. Isolate area. Guard against intruders.

### ACCIDENTAL RELEASE MEASURES

electrostatic or RF energy.

Incompatibility with Other Materials  
Incompatible with acids and alkalies.

#### Decomposition

Decomposes with heat. Decomposes with shock.  
Hazardous gases/vapors produced are Boron, Iron,  
Magnesium, Tellurium and Lead compounds,  
Carbon Monoxide and Nitrogen Oxides.  
Detonation produces shrapnel.

#### Polymerization

Polymerization will not occur.

#### TOXICOLOGICAL INFORMATION

No Information Available

#### ECOLOGICAL INFORMATION

No Information Available

#### DISPOSAL CONSIDERATIONS

##### Waste Disposal

Consult explosive manufacturer for  
recommended methods of destroying explosive  
materials. Comply with applicable Federal,  
State and Local Regulations.

#### TRANSPORTATION INFORMATION

##### Shipping Information

Shipping Information depends on packaging and  
product characteristics. Check manufacturer or  
shipper for specific information.

#### OTHER INFORMATION

##### Additional Information

**WARNING:** This product contains chemicals  
known to the State of California to cause cancer,  
birth defects, or other reproductive harm. It is  
obviously impossible to include warnings or  
approved methods for every conceivable situation.  
A list of suggestions to aid in avoiding the more  
common causes of  
accidents is set forth in the "Always and Never"  
and "Instructions and Warnings" included as case

APPENDIX I TO THE WORK PLAN

**PROPERTY MANAGEMENT  
AND CONTROL PLAN**

FOR THE

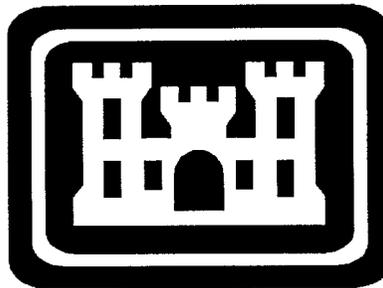
**SURFACE TO ONE-FOOT SUBSURFACE ORDNANCE  
AND EXPLOSIVES CONSTRUCTION SUPPORT**

**PROPOSED EASTERN BYPASS  
FORT MCCLELLAN, CALHOUN COUNTY, ALABAMA**

Contract Number: DACA87-97-D-0005

Task Order: 0012

Prepared For:



The U.S. Army Engineering and Support Center  
Huntsville, Alabama

Prepared By:



2229 Old Highway 95  
Lenoir City, Tennessee 37771

July 1999

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## 1.0 INTRODUCTION

### 1.1 POLICY STATEMENT

It is the policy of EOD Technology, Inc. (EODT) to meet or exceed Federal Government property control guidelines. In compliance with this policy, EODT and its subcontractor personnel are obliged to adhere to the policies, procedures and practices contained in this Program during the performance of all Government contracts managed by EODT.

### 1.2 OBJECTIVE

The objective of this Property Management and Control Program (PMCP) is to outline the procedures and acceptable practices to be used for the management of all Government owned property used by EODT in the execution of its contracts with the Government. This PMCP contains a standardized system for the control, protection, preservation, maintenance and tracking of Government equipment.

### 1.3 SCOPE

This program shall apply to all Government property and equipment provided to EODT during the performance of any Federal Government contract or subcontract awarded to, and managed by, EODT. This Program also applies to any Government property or equipment furnished by the Government for use by EODT subcontractors in the execution of a Federal Government contract.

### 1.4 APPLICATION

The Federal Acquisition Regulation (FAR) Part 45 applies to Government property that will be controlled and used by EODT or its subcontractors. If the provisions of a particular Government contract conflict with any aspect of this PMCP, or EODT management and accounting policies, the specific contract provision shall govern and apply to the execution of the particular Government contract. Portions of this Program shall be amended, as needed, to reflect specific contract requirements for the use of Government property.

## 2.0 DEFINITIONS

The terms used in this PMCP are defined in FAR 45.501. These pre-defined terms, along with some Program specific definitions are presented below and shall apply to the implementation of this Program.

- **Acquisition:** The process of acquiring Government property either through requisition or transfer from Government sources or through purchase, including those made through contractor stores.
- **Contaminated Property:** Equipment or supplies that have been exposed to radioactive or toxic waste, chemicals, materials, or environments that have rendered them unsafe to use.

- **Contracting Officer (CO):** The Government employee who is the only Government representative authorized to make changes in a contract and approve the furnishing or acquisition of property under the contract. The CO is also the individual who designates the Government Property Administrator, as defined below.
- **Contractor-acquired Property (CAP):** Property acquired by EODT using contract funds that is reportable to the Government as property.
- **Equipment:** This is the category of property which refers to all items covered under the definitions of nonexpendable property.
- **Expendable Property:** Materials and other supplies that are acquired and expended routinely in the performance of the contract. Expendable property is consumed and loses its identity after use, such as paper, pens, disposable clothing/gloves, etc.
- **Government-furnished Property (GFP):** Government property or equipment that is directly acquired by or in the possession of the Government, and which is delivered to or otherwise assigned to EODT for the performance of a Government contract. Once transferred to EODT, maintenance and responsibility for use is also transferred to EODT.
- **Government Property:** All property owned by or leased to the Government, or acquired by the Government under the terms of a contract. Government property includes GFP and CAP as defined previously.
- **Government Property Administrator (GPA):** The designated representative of the CO who administers the contract obligations and requirements relevant to Government property.
- **Hazard-free Certification:** A certification indicating that the Government property is free of contamination that is submitted by EODT to the Government when Government property is no longer required at an EODT facility. This certification will be signed by the EODT Equipment Manager and submitted to the Contract Property Administrator.
- **Inventory:** The process of visually locating and tagging/marketing, describing and reporting all Government property. The inventory results are to be reconciled and balanced against the Contract Property Administrator records.
- **Material:** Property that may be incorporated into (or attached to a deliverable end item) or that may be consumed, or expended, in performing a contract. This includes assemblies, components, parts, raw and processed materials and small tools and supplies that may be consumed in normal use while performing the contract.
- **Non-conformance:** Any deviation from this Program. All non-conformance will be documented and resolved under the direction of the Equipment Manager.
- **Nonexpendable Property:** Durable Government-furnished or contractor-acquired materials and other supplies that are not typically expended in the performance of the contract. Nonexpendable property is not consumed and does not lose its identity or usefulness during use, such as vehicles, computers, field radios, magnetometers, etc.

- **Project Manager (PM):** The EODT employee responsible for the operational performance of a project under a Government contract. This employee may be assigned to manage the project from either the project site, or the corporate office.
- **Project Officer:** The technical representative of the CO who is responsible for monitoring the contractor's contract performance and providing property justification to the CO.
- **Site Manager (SM):** The senior on-site EODT employee assigned to a project who is responsible for the on-site implementation of this Program.

### 3.0 EODT PERSONNEL RESPONSIBILITIES

During the performance of a Government contract, the EODT personnel assigned to the positions listed below shall be responsible for the implementation of the this Program.

#### 3.1 DIRECTOR OF OPERATIONS

During the performance of a Government contract, the EODT Director of Operations (DOO) will be responsible for the overall implementation of this Program, to include the following:

- Monitoring EODT's general compliance with the PMCP procedures;
- Implementing and enforcing the PMCP for EODT Government contracts;
- Coordinating with the EODT Contract Administrator (CA) to ensure compliance with contract terms, modifications and other contract administration requirements related to GFP;
- Serving as the primary EODT point of contact with the GPA regarding the guidelines set forth in the PMCP as they apply to Government contracts;
- Ensuring that all GFP is properly marked or tagged and keeping inventory records up to date;
- Coordinating with the SM to ensure that all GFP is maintained and calibrated in accordance with (LAW) the manufacturer's recommended service schedule and documenting all maintenance, repair and service; and
- Auditing the contract records to ensure site compliance with this Program.

#### 3.2 PROJECT MANAGER

During the performance of a contract to which the PM has been assigned, the PM will be responsible for the following:

- Ensuring that all EODT and subcontractor personnel who are involved in the acquisition, and use of Government property in support of a given contract comply with the PMCP ;
- Providing direction and consultation to the SM for the implementation of the PMCP for contracts for which the PM is responsible;
- Having the ultimate authority and responsibility to control, maintain, protect and preserve GFP in the possession of EODT at the project site;
- Reporting to the GPA, as soon as details become available, any loss, damage or destruction (LDD) of any Government property;

- Ensuring that each item of accountable GFP is specifically identified in the contract and that any changes in Government property are formally modified in writing signed by the CO; and
- Ensuring that the GFP assigned to a project site is used only on the site to which it is assigned under the terms of the project contract.

### 3.3 SITE MANAGER

During the performance of a contract to which the SM has been assigned, the SM will be responsible for the following:

- Maintaining the records, reports and logs, and submitting necessary reports to the GPA as required by this Program;
- Ensuring that site personnel have the required training to properly operate and maintain the GFP which has been assigned to them;
- Monitoring and auditing EODT subcontractors for their compliance with this Program and FAR 45.500;
- Ensuring the GFP assigned to the site is maintained and calibrated, as needed, by qualified personnel; and
- Ensuring that GFP is decontaminated and/or cleaned by site personnel, and that the GFP is returned in good condition, allowing for normal usage.

### 3.4 CONTRACT ADMINISTRATOR

The EODT Contract Administrator (CA) shall be responsible for acquiring GFP and CAP according to EODT purchasing policies and this Program. In this role, the CA will request and coordinate the issuance of GFP from the GPA, and will obtain necessary quotations for CAP.

### 3.5 GFP USERS

During the period of time to which GFP is assigned to an EODT or subcontractor employee, the user is responsible for the following:

- Ensuring the security, condition, proper usage, calibration and maintenance of the GFP; and
- Reporting any GFP deficiencies or malfunctions noted to the SM.

### 3.6 EODT SUBCONTRACTORS

Any EODT subcontractors in the possession of or in control of Government property shall establish and maintain an acceptable written Government property control system that complies with FAR 45.500. The EODT PM shall review and approve the subcontractor's written Government property control system prior to the subcontractor initiating operations under an EODT managed Government contract requiring the subcontractor to use Government property. The subcontractors Government property control system shall make provisions for the subcontractor to provide the EODT PM with the required documentation relevant to the receipt, use, maintenance and disposition of all Government property used by the subcontractor.

## 4.0 EODT RESPONSIBILITY

EODT will be directly responsible and accountable for all Government property IAW their Government contracts and FAR 45.500. This includes Government property in the possession or control of an EODT subcontractor. IAW with this Program, EODT shall maintain and make available to the Government all records generated or received by EODT used for the accounting of Government property until EODT is relieved of the responsibility. EODT shall be responsible for the control of Government property incident to the following:

- Delivery of GFP into EODT's custody or control;
- Delivery, when property is purchased by EODT and the contract calls for reimbursement by the Government;
- Issuance of Government property withdrawn from EODT-owned stores for use in the contract performance and charged directly to the contract; or
- Upon acceptance of property title by the Government when the property is acquired pursuant to specific contract clauses or as a result of change orders.

The EODT SM shall promptly report to the GPA in writing all Government property received in excess of the amounts needed to complete full performance of the contract which provides for or authorizes the use of the Government property. In the event that unrecorded Government property is located on site, both the cause of the discrepancy and the actions to be taken to prevent recurrence shall be determined and reported in writing to the GPA. As directed by the GPA, the SM will take such actions as needed to rectify the situation.

## 5.0 RECORDS AND REPORTS OF GOVERNMENT PROPERTY

### 5.1 GENERAL REQUIREMENTS

As required by FAR 45.505, EODT shall establish and maintain adequate control records for all Government property, including property provided to and in the possession or control of an EODT subcontractor. The EODT Government property records identified in this Program have been designed to identify all Government property and provide a complete, current, auditable record of all transactions. For each project site where Government property is to be used, the SM will be responsible for maintaining on-site files, and the DOO shall be responsible for maintaining contract files, both of which will contain the Government property records and reports required by, and presented in, this Program. The EODT DOO shall establish and maintain separate property records for each contract. The records and reports to be maintained shall include any reports sent to the GPA and copies of all EODT documentation relevant to the receipt, use, maintenance and disposition of government property.

### 5.2 BASIC INFORMATION

To record the receipt of, and to track the disposition of Government property, the SM shall record all Government property received on an EODT Property Control and Tracking Card (see Figure 1).

Using the above referenced forms, the SM shall record the basic information listed below (as applicable) for every item of Government property in EODT's possession:

- Project name and location;
- Contract and delivery order number;
- Name and description of the property;
- National Stock Number (if furnished by the Government or otherwise known);
- Manufacturer model;
- Manufacturer's serial number and any EODT serial number assigned under the requirements of para 7.2.2 of this Program;
- Posting reference and date of transaction;
- Quantity received, issued and on hand;
- Date received;
- Unit price;
- Condition code upon receipt (see para 14.0 of this Program);
- Manner of final disposition;
- Condition code upon disposition (see para 14.0 of this Program);
- Date of disposition; and
- Any other information needed to accurately track property control.

EODT Property Control and Tracking Cards will be reviewed at least monthly and updated as needed, with all reports submitted per the terms of the contract. Inventory reports shall be submitted to the GPA within 30 days of completion of the Project and the Form DD-1662 (see Figure 2) shall be submitted by October 15 of each year.

### 5.3 RECORDS OF MISDIRECTED SHIPMENTS

Records of misdirected Government property shall be maintained on site by the SM and will include a written report to the GPA which contains the following data:

- The identity of the shipment;
- The origin of the shipment;
- A copy of the shipping documents (if available);
- Location of the property; and
- Proposed disposition.

A copy of the written report will be maintained on site and a copy will be forwarded to the DOO for inclusion into the contract file. As directed by the GPA, the SM will return or redirect any misdirected Government property, and will record and report the final disposition of the Government property.

### 5.4 RECORDS OF SCRAP OR SALVAGE

The EODT SM shall maintain records of all scrap or salvage generated as a result of site activities. Prior to placement into any scrap/salvage storage containers, the SM will ensure that the scrap/salvage has been inspected according to established EODT quality control procedures contained in the project plans. This inspection system has been designed to ensure that no hazardous components or materials are placed into the scrap/salvage storage container. To record scrap or salvage, the SM will utilize the EODT Scrap and Salvage Log (see Figure 3), which provides for the recording of the following information:

- Project name and location;
- Contract and delivery order number;
- Description of the salvaged items or scrap;
- Running total of current quantity on hand;
- Posting reference and date of transaction; and
- Disposition.

## 6.0 PROPERTY ACQUISITION

The SM will be responsible for preparing quantity and technical specification requirements for each piece of equipment to be used on the project. These requirements will be forwarded to the PM for review. Once approved, the equipment requirements shall be forwarded to the EODT Contract Administrator (CA), who is responsible for the implementation of EODT purchasing policies, and for the acquisition of equipment IAW applicable FAR regulations. For CAP, the CA will obtain three quotes and perform a lease purchase analysis for each item not available from government sources. If GFP may be available for issue to a contract, the CA will contact and coordinate with the Government CO to determine availability and the terms of acquisition.

Equipment and materials purchased on an overhead account may be stored in a segregated central location and transferred out to projects on an as needed basis (as determined by the PM). This type of acquisition will be for expendable property and materials only (i.e., gloves, rubber boots and other basic personal protective equipment items, paper towels, electrolyte replacement solutions and mixes, etc.) that have an individual item value less than \$50.00. These items may be purchased initially in large quantities to reduce the overall cost per item.

## 7.0 RECEIPT OF GOVERNMENT PROPERTY

### 7.1 GENERAL REQUIREMENTS

EODT shall furnish written receipts for all specified classes of Government property when the GPA deems it essential for maintaining minimum acceptable property controls. If evidence of receipt is required for CAP, EODT shall provide the evidence of receipt before submitting its request for payment of the CAP. For GFP, EODT shall furnish a written hand receipt immediately upon receipt and acceptance of the property.

## 7.2 IDENTIFICATION AND MARKING OF GOVERNMENT PROPERTY

Any serial numbers and markings of Government ownership required by this paragraph shall be securely affixed to the property, legible and conspicuous. In the event that the marking of Government property will damage the property or is otherwise impractical, the SM will promptly notify the GPA in writing and request that the item be exempted from the marking requirements. Markings shall be removed or obliterated when Government property is sold, scrapped or donated.

### 7.2.1 Indication of Government Ownership

IAW FAR 45.506, the SM shall ensure that each item of Government property received is identified and marked with an indication of Government ownership. Except for the following, all Government property shall be marked:

- Items issued to individuals for use in their work (i.e., protective clothing or tool crib tools) where adequate physical control is maintained over the items;
- Property of a bulk nature, or where its general nature of packing or handling precludes adequate marking;
- Material that is commingled; or
- Items where the GPA agrees that marking is impractical.

### 7.2.2 Assignment of EODT Serial Number

In addition to marking items with an indication of Government ownership, the Government property listed below shall be marked with a unique EODT serial number IAW procedures approved by the GPA. The EODT serial number assigned to an item of Government property shall be recorded on all applicable documents pertaining to the control of the item. The items to be marked with an EODT serial number are as follows:

- Special tooling;
- Special test equipment;
- Components of special test equipment that have an acquisition cost of greater than \$5,000.00 that are incorporated in a manner that makes removal and reutilization feasible and economical;
- Plant equipment; and
- Accessory or auxiliary equipment associated with a specific item of plant equipment if necessary to assure return with the associated basic item.

## 7.3 DOCUMENTATION OF THE RECEIPT OF CAP

Upon receipt of CAP, the SM shall ensure that the CAP is marked as required by para 5.2 and shall complete an EODT Property Control and Tracking Card for each item of CAP received. The CAP received will also be added to the EODT Property Tracking Log. Along with the EODT Property Control and Tracking Card, the supplier's packaging slip shall also be used to document receipt of the CAP. A copy of the EODT Property Control and Tracking Card(s) along with a copy of the

packaging slip shall be maintained on site and the originals will be forwarded to the DOO for inclusion in the contract file. Prior to the submission of a request for payment for CAP, EODT shall provide the GPA with a copy of the supplier's packaging slips and/or invoices for payment, along with the EODT Property Control and Tracking Card as documentation of the receipt of CAP.

#### **7.4 DOCUMENTATION OF THE RECEIPT OF GFP**

Upon receipt of GFP, each item will be inspected to determine its identity, condition and usability. The SM will ensure that all GFP is marked IAW the requirements of para 5.2 and the receipt of the GFP will be documented on the EODT Property Control and Tracking Card. Once the GFP has been recorded on the Property Control Card(s), the SM shall ensure that the EODT Property Control and Tracking Card(s) are properly filed on site and will forward a copy of the card(s) to both the DOO, for inclusion in the contract files, and the GPA to document receipt of the GFP.

#### **7.5 DISCREPANCIES INCIDENT TO SHIPMENT AND RECEIPT**

##### **7.5.1 Contractor-acquired Property**

The EODT SM and/or PM shall take all actions necessary to adjust overages, shortages or damages incident to the shipment of CAP from a supplier or vendor. However, when the shipment has been moved by Government bill of lading and carrier liability is indicated, EODT shall report the discrepancies IAW the provisions of para 7.5.2.

##### **7.5.2 Government-furnished Property**

If overages, shortages or damages are discovered upon receipt of GFP, the EODT SM or PM shall provide a written statement of the condition and apparent causes to the GPA. Only the quantity of GFP actually received will be recorded by the SM or PM using the EODT Property Control and Tracking Card(s).

#### **8.0 SEGREGATION OF GOVERNMENT PROPERTY**

Government property shall be kept physically separate from EODT-owned property. However, when advantageous to the Government and consistent with EODT's authority to use such Government property, the GPA may approve the commingled storage of Government and EODT property. Combined storage will be allowed provided that Government property is clearly identified and recorded as Government property IAW para 7.2 of this Program.

#### **9.0 PHYSICAL INVENTORIES**

EODT shall periodically conduct project specific physical inventories of all Government property in its possession or control. This requirement will also apply to any EODT subcontractors in control of Government property. Physical inventories shall, as a minimum, be conducted on a monthly basis for the duration of the contract for each project. Upon conclusion of the project, the procedures outlined in para 9.0 of this Program shall be followed concerning final physical inventory.

Personnel who perform the physical inventory shall not be the same individuals who maintain the on site property records or have custody of the property, unless the number of EODT personnel on site is too small to do otherwise. To conduct the inventory, the EODT Physical Inventory Log (see Figure 4) shall be used, with a copy of the log maintained on site, and a copy of the log forwarded to the DOO for inclusion in the contract file. Upon completion of the physical inventory, EODT shall submit to the GPA the following information:

- A copy of the Physical Inventory Log identifying inventory on hand and any discrepancies disclosed by the inventory;
- A statement signed by the SM indicating that the physical inventory was completed on a given date and that the official property records maintained on site were found to be in agreement except for any discrepancies noted.

## **10.0 USE, CARE AND MAINTENANCE OF GOVERNMENT PROPERTY**

From the time of receipt until properly relieved of responsibility, EODT shall be responsible for the proper use, care and maintenance of Government property in its possession or control. Use, care and maintenance of Government property shall be conducted IAW sound practice and the terms of the project contract. The removal of Government property to storage or its contemplated transfer does not relieve EODT from these responsibilities. Only those procedures outlined in para 12.0 will be used to relieve EODT from these responsibilities.

### **10.1 USE OF GOVERNMENT PROPERTY**

Government property assigned to a particular project site shall only be used by personnel at the project site who are appropriately trained and authorized to use the property. Additionally, Government property shall only be used for those purposes provided for and authorized by the project contract. With respect to Government property with an acquisition value of \$5,000.00 or more, EODT has established a minimum level of use of once per week. Use below this level will require the SM to conduct an analysis of need to justify retention of the property. To ensure the minimum use level, the actual use of the Government property shall be recorded in the SM or Team Leader daily operational log books. In the event that retention of Government property is not justifiable, the SM shall provide notification to the GPA.

### **10.2 EODT MAINTENANCE PROGRAM**

Preventative maintenance is maintenance performed on a regularly scheduled basis to prevent the occurrence of defects and to detect and correct minor defects before they result in serious consequences. In the event that the need for a major repair, replacement or rehabilitation of Government property is discovered, the SM shall report the finding to the GPA prior to acquiring such services. Actual preventative maintenance programs for each project site will be established and specified in the project plans, however EODT has established the following minimum preventative maintenance requirements:

- All Government property and equipment shall be visually inspected at least weekly to determine proper function and reliability and to detect any defect, maladjustment, wear or impending failure;
- All Government property and equipment shall receive regularly scheduled service and maintenance as required by the manufacturer, or as specified in any instruction manuals;
- Any worn, damaged or otherwise compromised Government property, or its components, will be replaced as soon as possible;
- Defective or worn parts or components shall be replaced using manufacture's recommended parts/components, and shall be replaced by only those personnel authorized to do such repairs;
- Special tools or accessories furnished with Government property but not regularly used with it shall be stored in a designated area specified by the SM; and
- Documentation of inspection and maintenance shall be recorded in the SM or Team Leader daily operational log books.

### 11.0 LIABILITY FOR LOSS, DAMAGE OR DESTRUCTION

Subject to the terms of the contract and the circumstances surrounding the particular case, EODT may be liable for LDD of GFP in its possession. EODT may also be liable for use or consumption of Government property that unreasonably exceeds the allowances provided by the contract or other appropriate criteria. EODT and its subcontractors shall investigate and report to the GPA all cases of LDD according to the following:

- EODT shall provide information about LDD to the GPA as soon as facts become known;
- EODT subcontractors shall provide information to the SM regarding LDD as soon as facts relevant to the LDD become available;
- Reports for LDD shall contain a memorandum and any other support documents needed to accurately present the causes for the LDD; and
- Reports of LDD shall be maintained on site, with a copy sent to the DOO for inclusion in the project contract file.

For each case of LDD of Government property, the following information should be provided to the designated EODT PM:

- Date of incident;
- Date of report;
- Description of property, including applicable identification number;
- Contract number;
- Acquisition cost;
- Full narrative of the incident, location, etc.;
- Corrective action taken to prevent recurrence;
- Estimated scrap proceeds (when applicable);
- Repair labor and materials cost (when applicable);

- Estimated cost to replace (when applicable);
- Copies of any supporting documentation;
- The contract provision under which relief is being sought;
- Statement that no insurance costs or other means of covering LDD of Government property were charged to the contract (if applicable); and
- Statement that, in the event EODT was, or will be, reimbursed or compensated for LDD of Government property, (i.e., reimbursement by a subcontractor) the Government shall receive equitable reimbursement.

## 12.0 CONTRACT CLOSURE AND RELIEF FROM RESPONSIBILITY

All GFP shall be inventoried at the time of contract closure. Disposition of GFP shall be determined by the Government, or as otherwise stated in the contract. Upon termination of on-site activities, several options related to the disposition of GFP may be exercised at the discretion of the CO. Upon consent of the CO, GFP assigned to the terminating project site may be transferred to other contracts. If transfer of GFP is not an option or feasible, EODT relief from responsibility for GFP may occur as a result of the following:

- The authorized sale, provided the proceeds are received by or credited to the Government;
- Consumption of property in the performance of the contract as determined by the GPA as being reasonable and proper; and
- EODT may retain the property, with the approval of the CO, provided the Government has received consideration.

A determination by the CO for EODT's liability for any property lost, damaged, destroyed or consumed in excess of that normally anticipated may be made, provided:

- The determination is made in writing;
- The Government is reimbursed where required by the determination; and
- Property rendered unserviceable by damage is properly disposed of, and the determination is cross-referenced to documents evidencing disposal.

## 13.0 PROGRAM COMPLIANCE AND AUDITS

EODT personnel responsible for the acquisition, receipt, use, maintenance, care or disposition of Government property shall comply with the provisions and procedures presented in this Program. In the event that the government conducts an audit of this program and/or project sites where this Program is being implemented, EODT shall make available to the Government auditor all such records and related correspondence as requested by the auditor. For the purpose of ensuring EODT project site compliance, the EODT Quality Control Manager (QCM) shall periodically conduct internal audits of this program and the project sites where this program is being implemented. Upon completion of an internal audit, the QCM shall generate a report of the audit findings and will provide the DOO, SM and PM with copies of the report. If any noncompliance is noted, the SM and

PM will immediately take such actions as necessary to correct the noncompliance. If the noncompliance involves discrepancies in the inventory of GFP, the SM will notify the GPA in writing of the discrepancy and will correct the discrepancy. Copies of internal audit reports shall be maintained on site and in the contract file.

## 14.0 CONDITION CODES

The following condition codes shall be used when determining the condition of GFP and CAP at the time of receipt and disposition:

- UNG      Unused-good: Unused property that is usable without repair or modification and is identical or interchangeable with new items from normal supply sources.
- UNF      Unused-fair: Unused property that is usable without repair or modification, but is slightly deteriorated or damaged to the extent that it is no longer identical or interchangeable with new items available from normal supply sources.
- UNP      Unused-poor: Unused property that is usable without repairs or modification, but is considerably deteriorated or damaged. However enough utility remains as to classify the property better than salvage.
- UG        Used-good: Used property that is usable without repairs, but is somewhat worn or deteriorated and may soon require repairs.
- UF        Used-fair: Used property that is usable without repairs, but is considerably worn or deteriorated to the degree that remaining utility is limited or significant repairs will soon be required.
- UP        Used-poor: Used property that may still be used without repairs, but the item is considerably worn or deteriorated to the degree that remaining utility is limited and significant repairs will soon be required.
- RRMIN    Repair required-minor: Property is unusable in its current state due to the required repairs. Repairs needed are minor and have been estimated to not exceed 15 percent of the original acquisition cost.
- RRMOD    Repair required-moderate: Property is unusable in its current state due to the required repairs. Repairs are considerable and are estimated to range from 16 to 40 percent of the original acquisition cost.
- RRMAJ    Repair required-major: Property is unusable due to required repairs. Repairs are major because property is badly damaged, worn or deteriorated and are estimated to range from 41 to 65 percent of the original acquisition cost.
- SAL       Salvage: Property that has some value in excess of its basic material content, but repair or rehabilitation to usefulness is clearly impractical. Repair for any use would exceed 65 percent of the original acquisition cost.
- SCRAP    Scrap: Material that has no value except for its basic material content.
- EXP       Expended: Property that has been consumed in the performance of the work.
- MISS      Missing: Property that is lost, stolen or missing.

## EODT PROPERTY CONTROL AND TRACKING CARD

Project Name and Physical Location:		Contract Number:	Delivery Order Number:
Name and Address of Supplier: _____ _____ _____		Posting Reference No.:	Date of Transaction:
		National Stock Number:	Manufacturer Model No.:
Name and Description of Item: _____ _____		Manufacturer Serial No.:	EODT Serial No.:
		EODT PO No.:	Unit Price:
Item Received Is: <input type="checkbox"/> GFP, <input type="checkbox"/> CAP, <input type="checkbox"/> EODT-owned		Date Received:	Condition Code Upon Receipt:
Item Issued To:		Date of Issue:	Date of Return:
Date of Final Disposition:	Condition Code Upon Disposition:	Place of Final Disposition:	
Manner of Final Disposition: _____ _____ _____ _____			

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

To the best of my knowledge, the information presented on this EODT Property Control and Tracking Log is correct.

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date of Signature: \_\_\_\_\_

Figure 1

FORM DD-1662

<b>DOD PROPERTY IN THE CUSTODY OF CONTRACTORS</b> (DFARS 245.505-14) <i>(See Instructions on reverse before completing this form.)</i>		REPORT AS OF 30 SEP 19 ____ OR ____	Form Approved OMB No. 0704-0246 Expires Oct 31, 1991  REPORT CONTROL SYMBOL			
Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0246), Washington, DC 20503.						
1. TO (Enter name and address of property administrator)		2. FROM (Enter full name, address and CAGE code of contractor)				
3. IF GOVERNMENT-OWNED, CONTRACTOR-OPERATED PLANT, ENTER GOVERNMENT NAME OF PLANT						
4. CONTRACT NO. (PIN)	5. CONTRACT PURPOSE	6. BUSINESS TYPE (L, S, or M)	7. OFFICIAL NAME OF PARENT COMPANY			
8. PROPERTY LOCATION(S)		9. PLANT EQUIPMENT PACKAGE (PEP No. and use)				
a. PROPERTY (Type or Account)	b. BALANCE BEGINNING OF PERIOD		c. ADDITIONS (in dollars)	d. DELETIONS (in dollars)	e. BALANCE END OF PERIOD	
	(1) Acquisition Cost (in dollars)	(2) Quantity (in units or acres)			(1) Acquisition Cost (in dollars)	(2) Quantity (in units or acres)
10. LAND						
11. OTHER REAL PROPERTY						
12. OTHER PLANT EQUIPMENT						
13. INDUSTRIAL PLANT EQUIPMENT						
14. SPECIAL TEST EQUIPMENT						
15. SPECIAL TOOLING (Government Title Only)						
16. MILITARY PROPERTY (Agency-Peculiar)						
17. GOVERNMENT MATERIAL (Government-Furnished)						
18. GOVERNMENT MATERIAL (Contractor-Acquired)						
<b>CERTIFICATION</b> I certify that this report was prepared under DoD requirements from records maintained under FAR 45.5 and DFARS 245.5.						
19. CONTRACTOR REPRESENTATIVE a. TYPED NAME (Last, First, Middle Initial)		b. SIGNATURE		c. DATE SIGNED (YYMMDD)		
20. DOD PROPERTY REPRESENTATIVE a. TYPED NAME (Last, First, Middle Initial)		b. TELEPHONE NUMBERS (Commercial and Autovon)		c. SIGNATURE		d. DATE SIGNED (YYMMDD)

Figure 2





