Du Pont Chemicals

1701PC

Revised 30-NOV-1993 Printed 17-FEB-1994

DuPONT OIL RED B LIQUID

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification
Corporate MSDS Number DU000613

Tradenames and Synonyms
C. I. SOLVENT RED 164
OIL RED B LIQUID
RED B LIQUID

Company Identification
MANUFACTURER/DISTRIBUTOR
DuPont
1007 MARKET STREET
WILMINGTON, DE 19898

PHONE NUMBERS
Product Information 1-800-441-7515
Transport Emergency CHEMTREC 1-800-424-9300
Medical Emergency 1-800-441-3637

COMPOSITION/INFORMATION ON INGREDIENTS

Components Material	CAS Number	%
*XYLENE	1330-20-7	35
*(ETHYLBENZENE)	100-41-4	(6.7)
(BENZENE)	71-43-2	<0.035
2-NAPHTHALENOL[(PHENYLAZO)PHENYL]AZO ALKYL DERIVATIVES (C.I. SOLVENT RED 164)		65
ANILINE	62-53-3	0.03
O-TOLUIDINE	95-53-4	0.03

NOTE: C.I. Solvent Red 164 - Ref. TSCA Accession # 35371

* 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.

(Continued)

HAZARDS IDENTIFICATION

Potential Health Effects

ANIMAL DATA:

Oil Red B Liquid Dye:

Oral LD50: > 20.8 g/kg in rats
Skin Absorption LD50: > 10.2 g/kg in rabbits

Xylene (mixed isomers):

Inhalation 4 hour LC50: 6,700 ppm in rats

The product ingredients contain moderate to severe skin and eye irritants in animals. Animal effects attributed to xylene include narcosis caused by skin absorption. Toxicity described for xylene from exposure by inhalation include upper respiratory irritation; central nervous system and behavorial effects; decreased weight gain; hearing loss; and effects on the liver, kidneys, heart, spleen, lungs, bone marrow, and blood. Central nervous system effects; decreased body weights; and liver effects were seen in animals exposed by ingestion to xylene. Tests on xylene in animals demonstrate no carcinogenic activity. While one dye component did produce genetic damage in bacterial cell cultures, xylene does not produce heritable genetic damage in animals or genetic damage in bacterial or mammalian cell cultures. Although abnormal sperm were observed after an intraperitoneal injection in rats, xylene did not produce reproductive effects; developmental toxicity was observed but only at concentrations that were maternally toxic.

HUMAN HEALTH EFFECTS OF OVEREXPOSURE:

Skin contact with xylene may include drying of the skin with irritation and rash. Skin permeation can occur in amounts capable of producing the effects of systemic toxicity. Eye contact may include eye irritation with discomfort, tearing, or blurring of vision.

Inhalation of xylene may include nonspecific discomfort, such as nausea, headache, or weakness; and temporary nervous system depression with anaesthetic effects such as dizziness headache, confusion, incoordination, and loss of consciousness. Higher exposures may lead to cardiac stress; anemia and other blood changes; respiratory effects; possible liver and kidney damage; or fatality from gross overexposure. Ingestion of xylene may include gastrointestinal irritation; nonspecific discomfort, such as nausea, headache, or weakness; liver effects and temporary nervous system depression.

Individuals with preexisting diseases of the central nervous

(Continued)

HAZARDS IDENTIFICATION(Continued)

system, kidneys, liver, cardiovascular system, lungs, or bone marrow may have increased susceptibility to the toxicity of excessive exposures.

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
(BENZENE)	X	X	X	X
O-TOLUIDINE	X	X		X

Du Pont controls the following materials as potential carcinogens: (BENZENE). O-TOLUIDINE.

FIRST AID MEASURES

First Aid

INHALATION

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

SKIN CONTACT

Flush skin with water. The dye can be removed with hand cream or hand cleaner. Call 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.

Gastric lavage may be advisable for significant ingestions.

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FIRE FIGHTING MEASURES

Flammable Properties

Flash Point	28 C (82 F)
Method	PMCC
Flammable limits in Air, % by Volume	
LEL	1
UEL	7

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

Hazardous gases/vapors produced in fire are carbon monoxide, oxides of nitrogen, acrid smoke and fumes.

Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Cool tank/container with water spray.

ACCIDENTAL RELEASE MEASURES

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.

Spill Clean Up

Soak up with sawdust, sand, oil-dry or other absorbent material.

Accidental Release Measures

"This is an ICR (ignitable, corrosive, reactive) substance under CERCLA. Unless released material is immediately cleaned up for reprocessing, recycling, or reuse, a release of 100 lbs. may trigger the reporting requirements of CERCLA Section 103.

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HANDLING AND STORAGE

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

Launder contaminated clothing before reuse.

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. Store in a well ventilated place. Keep container tightly closed. Store in accordance with National Fire Protection Association recommendations.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls
Keep container tightly closed.

Use ventilation that is adequate to keep airborne concentrations below exposure limits. Avoid conditions that are likely to generate airborne mists.

Personal Protective Equipment
EYE/FACE PROTECTION
Wear safety glasses or coverall chemical splash goggles.

RESPIRATORS
Where there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

PROTECTIVE CLOTHING
Where there is potential for skin contact have available and wear as appropriate, impervious gloves, apron, pants, and jackets.

 # Exposure Guidelines
Applicable Exposure Limits

XYLENE

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

BEI (ACGIH)

Determinant	Sampling Time	BEI	Notation
Methylhippuric acids in urine	End of shift Last 4 hours of shift	1.5 g/g creatinine 2 mg/minute	

AEL * (Du Pont) 100 ppm, 8 Hr. TWA

(Continued)

150 ppm, 15 minute TWA

(ETHYLBENZENE)

PEL (OSHA)	100 ppm, 435 mg/m3, 8 Hr. TWA
TLV (ACGIH)	100 ppm, 434 mg/m3, 8 Hr. TWA STEL 125 ppm, 543 mg/m3

BEI (ACGIH)

Determinant	Sampling Time	BEI	Notation
Mandelic acid in urine	End of shift at end of workweek	1.5 g/g creatinine	Ns
Ethyl benzene in end-exhaled air			Sq

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/m3, A2, 8 Hr. TWA Notice of Intended Changes (1993-1994) 0.1 ppm, 0.3 mg/m3, 8 Hr. TWA, Skin, A1

BEI (ACGIH)

Determinate	Sampling Time	BEI	Notation
Total phenol in urine	End of shift	50 mg/g creatinine	B,Ns
Benzene in exhaled air:	Prior to next shift		
Mixed-exhaled		0.08 ppm	Sq
End-exhaled		0.12 ppm	Sq

AEL * (Du Pont): 1 ppm, 8 & 12 Hr. TWA
5 ppm, 15 minute TWA

ANILINE

PEL (OSHA)	5 ppm, 19 mg/m3, 8 Hr. TWA, Skin (and homologues)
TLV (ACGIH)	2 ppm, 7.6 mg/m3, 8 Hr. TWA, Skin (and homologues)

BEI (ACGIH)

Determinant	Sampling Time	BEI	Notation
Total p-amino phenol in urine	End of shift	50 mg/g creatinine	Ns
Methemoglobin	End of shift	1.5% of hemoglobin	B,Ns,Sq

AEL * (Du Pont): 2 ppm, 8 & 12 Hr. TWA, Skin

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EXPOSURE CONTROLS/PERSONAL PROTECTION(Continued)

O-TOLUIDINE	
PEL (OSHA)	5 ppm, 22 mg/m3, 8 Hr. TWA, Skin
TLV (ACGIH)	2 ppm, 8.8 mg/m3, A2, 8 Hr. TWA, Skin
AEL * (Du Pont)	5 ppm, 8 Hr. TWA, Skin

* 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.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point	137 C (279 F) @ 760 mm Hg
Vapor Pressure	5.1 mm Hg @ 20 C (68 F)
Vapor Density	3.6 (Air = 1)
% Volatiles	~33 WT%
Evaporation Rate	9.5 (Ether = 1)
Solubility in Water	negligible
Odor	Aromatic hydrocarbon
Form	Liquid
Color	Dark red
Specific Gravity	1.0 @ 16C (60F)

STABILITY AND REACTIVITY

Chemical Stability
Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials
Incompatible with oxidizing and reducing agents.

Decomposition
Dye may be reduced to liberate free aromatic amines.

Polymerization
Polymerization will not occur.

ECOLOGICAL INFORMATION

Ecotoxicological Information
Aquatic Toxicity

Red-B Liquid: 96 Hour TLM50: > 10 mg/L - fresh water - mummichog fish.

Xylene: Moderately toxic (96 Hour LC50: 1-50 mg/L). The 96 Hour LC50, fathead minnows: 27-42 mg/L.

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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.

This material may be an RCRA regulated hazardous waste upon disposal due to the ignitability characteristic.

TRANSPORTATION INFORMATION

Shipping Information

DOT	
Proper Shipping Name	XYLENE SOLUTION
Hazard Class	FLAMMABLE LIQUID
I.D. No. (UN/NA)	1307
DOT Label(s)	FLAMMABLE LIQUID
DOT/IMO	
Proper Shipping Name	XYLENE SOLUTION
Hazard Class	3
UN No.	1307
DOT/IMO Label	FLAMMABLE LIQUID
Special Information	FLASH POINT: >23 C

Shipping Containers

Tank Trucks.	
Steel Drums	DOT 17E

Reportable Quantity 1000 lb XYLENE

REGULATORY INFORMATION

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

NFPA, NPCA-HMIS

NPCA-HMIS Rating	
Health	1
Flammability	3
Reactivity	0

Personal Protection rating to be supplied by user depending on use conditions.

Additional Information

CALIFORNIA PROPOSITION 65: This product contains trace quantities (< 300 ppm) of benzene, a chemical known to the State of California to cause cancer.

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	R. V. Daum
Address	DuPont Chemicals Wilmington, DE 19898
Telephone	800-441-9442

# Indicates updated section.

End of MSDS

MATERIAL SAFETY DATA SHEET

Oatey®
4700 W. 160TH Street
P.O. Box 35906
Cleveland, Ohio 44135
Emergency Tel No.
(303) 623-5716 Collect

Uni-Weld Heavy Bodied Gray Extra PVC [illegible] Cement

Latest Revision Date...05/05/00 Date of Issue.....05/23/02

Section 1 IDENTITY OF MATERIAL

TRADE NAME..... Uni-Weld Heavy Bodied Gray Extra PVC Solvent Cement
PRODUCT NUMBERS... 1846S, 1836S, 1824, 3936S
FORMULA..... PVC Resin in Solvent Solution
SYNONYMS..... PVC Plastic Pipe Cement

SECTION 2 HAZARDOUS INGREDIENTS

INGREDIENTS	%	CAS NUMBER	SEC 313
PVC Resin (Non-Hazardous)	10-20%	9002-86-2	No
Tetrahydrofuran (See SECTION 6)	40-55%	109-99-9	No
Methyl Ethyl Ketone	25-40%	78-93-3	Yes
Cyclohexanone	7-12%	108-94-1	No
Amorphous Silica	1- 4%	112945-52-5	No
Colorants	<4%	N/A	No

SECTION 3 KNOWN HAZARDS UNDER 29 CFR 1910.1200

HAZARDS	YES	NO	HAZARDS	YES	NO
Combustible Liquid		x	Skin Hazard	x	
Flammable Liquid	x		Eye Hazard	x	
Pyrophoric Material		x	Toxic Agent	x	
Explosive Material		x	Highly Toxic Agent		x
Unstable Material		x	Sensitizer		x
Water Reactive Material		x	Kidney Toxin	x	
Oxidizer		x	Reproductive Toxin	x	
Organic Peroxide		x	Blood Toxin		x
Corrosive Material		x	Nervous System Toxin	x	
Compressed Gas		x	Lung Toxin	x	
Irritant	x		Liver Toxin	x	
Carcinogen NTP/IARC/OSHA (see SECTION 6)		x			

SECTION 4 REGULATION

CHEMICAL	TLV (TWA)	PEL	STEL	Hazard Action Level
Tetrahydrofuran	200 ppm, 590 mg/cu m	200 ppm, 590 mg/cu m	250 ppm, 735 mg/cu m	N/A
Methyl Ethyl Ketone	200 ppm, 590 mg/cu m	200 ppm, 590 mg/cu m	300 ppm, 885 mg/cu m	N/A
Cyclohexanone	25 ppm, 100 mg/cu m (skin)	50 ppm, 200 mg/cu m	N/A	N/A

SECTION 5 REGULATED IDENTIFICATION

DOT PROPER SHIPPING NAME..... CONSUMER COMMODITY ORM-D; For gallons: Adhesives, 3, UN 1133, PG II
DOT HAZARD CLASS..... Class 3 Flammable Liquid
SHIPPING ID NUMBER..... UN 1133 (Gallons Only)
EPA HAZARDOUS WASTE ID NUMBER... D-001
EPA HAZARD WASTE CLASS..... Ignitable Waste/Toxic Waste

SECTION 6 EFFECTS OF EXPOSURE

ENTRY ROUTE..... INHALE - YES INGEST - YES SKIN - YES EYE - YES

INHALATION..... May cause irritation of mucous membranes, nose & throat, headache, dizziness, nausea, numbness of the extremities and narcosis in high concentrations. Has caused CNS depression & liver damage in animals, & high concentrations have caused retardation of fetal development in rats.

TETRAHYDROFURAN WARNING ..... The National Toxicology Program has reported that exposure of mice and rats to Tetrahydrofuran (THF) vapor levels up to 1800 ppm 6 hr/day, 5 days/week for their lifetime caused an increased incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health are unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF. THF is not listed as a carcinogen by NTP, IARC, or OSHA. One THF vendor has recommended a reduction in the "acceptable exposure limit" from 200 ppm to 25 ppm, 8 and 12 hour time weighted average.

SKIN..... Chronic contact may lead to irritation & dermatitis. Chronic exposure to vapors of high concentration may cause dermatitis. May possibly be absorbed through the skin.

EYE..... Vapors or direct contact may cause irritation.

INGESTION..... May be aspirated into the lungs or cause systemic effects described under inhalation.

TARGET ORGANS... Eye, Skin, Kidney, Lung, Liver, Central Nervous System

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