

SECTION 1. Identification of the substance/preparation and of the company/undertaking

Manufacturer: E.I. du Pont de Nemours & Co.
 DuPont Performance Coatings
 Wilmington, DE, 19898

Telephone: Product information: (800) 441-7515
 Medical emergency: (800) 441-3637
 Transportation emergency: (800) 424-9300
 (CHEMTREC)

Product: **Vinyl Enamels, Chassis Black, Duco® Black and Dulux® Black**

DOT Shipping Name: See DOT Addendum.

Hazardous Materials Information: See Section 10.

INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
Ethylbenzene	100-41-4	7.0	A 125.0 ppm 15 min STEL A 100.0 ppm O 100.0 ppm D 25.0 ppm 8 & 12 hour TWA
Heptane	142-82-5	45.0@66.0°F	A 500.0 ppm 15 min STEL A 400.0 ppm O 500.0 ppm
Lead naphthenate	61790-14-5	1.0@25.0°C	A 150.0 ug/m3 Pb O 50.0 ug/m3 Pb O 0.5 mg/m3
Long oil linseed alkyd	66070-59-5	2.0	A None O None
Medium mineral spirits	64742-88-7	0.3@68.0°F	D 50.0 ppm 8 & 12 hour TWA A None O None
Methyl ethyl ketone	78-93-3	71.2	A 300.0 ppm 15 min STEL A 200.0 ppm O 200.0 ppm D 300.0 ppm 15 min TWA D 200.0 ppm 8 & 12 hour TWA
Toluene	108-88-3	22.0	A 20.0 ppm O 300.0 ppm CEIL O 500.0 ppm 10 min TWA O 200.0 ppm D 50.0 ppm 8 & 12 hour TWA
Vinyl chloride - acetate polymer	9003-22-9	None	A 10.0 mg/m3 inhalable dust PNOC O None
Vm&p naphtha	8032-32-4	17.9@68.0°F	A 300.0 ppm D 100.0 ppm O None
Xylene	1330-20-7	8.0@25.0°C	A 150.0 ppm 15 min STEL A 100.0 ppm O 100.0 ppm D 150.0 ppm 15 min STEL D 100.0 ppm 8 & 12 hour TWA

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SECTION 2. Composition/information on ingredients

INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
Acetone	67-64-1	247.0@68.0°F	A 750.0 ppm 15 min STEL A 500.0 ppm O 1000.0 ppm D 500.0 ppm 8 & 12 hour TWA
Alkyd resin	66070-62-0	None	A None O None
Amorphous silica - precipitated	112926-00-8	None	A 10.0 mg/m3 O 15.0 mg/kg Total Dust O 5.0 mg/m3 TWA Respirable Dust D 3.0 mg/m3 Respirable Dust
Butyl acetate	123-86-4	10.0	A 200.0 ppm 15 min STEL A 150.0 ppm O 150.0 ppm
Carbon black	1333-86-4	None	A 3.5 mg/m3 O 3.5 mg/m3 D 0.5 mg/m3 8 & 12 hour TWA
Cobalt neodecanoate	27253-31-2	2.0@68.0°F	A None O None
Dimethyl glutarate	1119-40-0	0.2	D 10.0 mg/m3 A None O None
Epoxidized soybean oil	NotAvail	0.0@25.0°C	A None O None

INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
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*A=ACGIH, O=OSHA, D=DuPont, S=Suppliers. Limits are 8 hour TWA unless otherwise specified. Vapor pressure @ 20° C unless otherwise noted.

SECTION 3. Hazards identification

Potential Health Effects:

Inhalation:

May cause nose and throat irritation. May cause nervous system depression, characterized by the following progressive steps: headache, dizziness, nausea, staggering gait, confusion, unconsciousness. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage. If this product contains or is mixed with an isocyanate activator/hardener, the following health effects may apply: Exposure to isocyanates may cause respiratory sensitization. This effect may be permanent. Symptoms include an asthma-like reaction with shortness of breath, wheezing, cough or permanent lung sensitization. This effect may be delayed for several hours after exposure. Repeated overexposure to isocyanates may cause a decrease in lung function, which may be permanent. Individuals with lung or breathing problems or prior reactions to isocyanates must not be exposed to vapors or spray mist of this product.

Ingestion:

May result in gastrointestinal distress.

Skin or eye contact:

May cause irritation or burning of the eyes. Repeated or prolonged liquid contact may cause skin irritation with discomfort and dermatitis.

Other Potential Health Effects in addition to those listed above:

Acetone

The following medical conditions may be aggravated by exposure: lung disease, eye disorders, skin disorders. Overexposure may cause damage to any of the following organs/systems: blood, central nervous system, eyes, kidneys, liver, respiratory system, skin.

Butyl acetate

May cause abnormal liver function. The following medical conditions may be aggravated by exposure: respiratory system. Tests for embryotoxic activity in animals has been inconclusive. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother.

Carbon black

Is an IARC, NTP or OSHA carcinogen. Has shown carcinogenic activity in laboratory animals at high doses. Significance to man is unknown. The following medical conditions may be aggravated by exposure: asthma, respiratory disease.

WARNING: This chemical is known to the State of California to cause cancer.

Cobalt neodecanoate

Some cobalt compounds may be possible human carcinogens.

Ethylbenzene

Is an IARC, NTP or OSHA carcinogen. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, lungs. Recurrent overexposure may result in liver and kidney injury. Studies in laboratory animals have shown reproductive, embryotoxic and developmental effects.

WARNING: This chemical is known to the State of California to cause

cancer.

Heptane

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, respiratory system, skin. May cause central nervous system effects such as dizziness, headache, nausea, and loss of consciousness. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

Lead naphthenate

Can be absorbed through the skin in harmful amounts. Over exposure to lead may cause adverse effects to the blood forming, nervous, urinary, reproductive systems including embryotoxic effects. Symptoms may include loss of appetite, anemia, disturbance of sleep and fatigue. See OSHA lead standard 29CFR1910.1025. For exposures longer than 8 hours the OSHA exposure limit is reduced by this formula: $\text{limit}(\text{in } \mu\text{g}/\text{m}^3) = 400/\text{hours worked in the day}$.

WARNING: This chemical is known to the State of California to cause cancer and birth defects or other reproductive harm

Medium mineral spirits

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, respiratory system, skin. This substance may cause damage to any of the following organs/systems: blood, central nervous system, eyes, kidneys, liver, lungs, reproductive system, skin. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

Methyl ethyl ketone

Material is irritating to mucous membranes and upper respiratory tract. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, eyes, respiratory system, skin. Prolonged or repeated overexposure may cause any of the following: conjunctivitis, dermatitis. High concentrations have caused embryotoxic effects in laboratory animals. Aspiration may occur during swallowing or vomiting, resulting in lung damage. Ingestion may cause headache, nausea, vomiting, dizziness, and drowsiness.

Toluene

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, respiratory system, skin. Can be absorbed through the skin in harmful amounts. Recurrent overexposure may result in liver and kidney injury. High airborne levels have produced irregular heart beats in animals and occasional palpitations in humans. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. The significance of this to man is unknown.

WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

Vm&p naphtha

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, lungs, respiratory system, skin. This substance may cause damage to any of the following organs/systems: central nervous system, kidneys, liver, lungs, skin and eyes. Material may be harmful or fatal if swallowed.

Xylene

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: bone marrow, cardiovascular system, central nervous system, kidneys, liver, lungs.

Recurrent overexposure may result in liver and kidney injury. High exposures may produce irregular heart beats. Canada classifies Xylene as a developmental toxin as high exposures to xylenes in some animal studies have been reported to cause health effects on the developing fetus/embryo. These effects were often at levels toxic to the adult animal. The significance of these effects to humans is not known. Repeated or prolonged skin contact may cause any of the following: irritation, dryness, cracking of the skin.

80% Water OR 0-10% Ammonia, 2-5% Detergent and Water (balance). Pressure can be generated. Do not seal waste containers for 48 hours to allow CO₂ to vent. After 48 hours, material may be sealed and disposed of properly.

Ecological information

There is no data available on the product. The product should not be allowed to enter drains, water courses or the soil.

SECTION 4. First aid measures

First Aid Procedures:

Inhalation:

If affected by inhalation of vapor or spray mist, move to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing difficulty persists, or occurs later, consult a physician.

Ingestion:

In the unlikely event of ingestion, DO NOT INDUCE VOMITING. Call a physician immediately and have names of ingredients available.

Skin or eye contact:

In case of eye contact, immediately flush with plenty of water for at least 15 minutes; call a physician. In case of skin contact, wash thoroughly with soap and water. If irritation occurs, contact a physician.

SECTION 5. Fire-fighting measures

Flash Point (Closed Cup): See Section 11 for exact values.

Flammable Limits: LFL 0.5 % UFL 13 %

Extinguishing Media:

Universal aqueous film-forming foam, carbon dioxide, dry chemical.

Fire Fighting Procedures:

Full protective equipment, including self-contained breathing apparatus, is recommended. Water from fog nozzles may be used to prevent pressure build-up.

Fire and Explosion Hazards:

For flammable liquids, vapor/air will ignite when an ignition source is present. In other cases, when heated above the flash point, emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.

SECTION 6. Accidental release measures

Procedures for cleaning up spills or leaks:

Ventilate area. Remove sources of ignition. Prevent skin and eye contact and breathing of vapor. If material does not contain or is not mixed with an isocyanate activator/hardener: Wear a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH approved TC-23C), eye protection, gloves and protective clothing. Confine, remove with inert absorbent, and dispose of properly. If the material contains, or is mixed with an isocyanate activator/hardener: Wear a positive-pressure, supplied-air respirator (NIOSH approved TC-19C), eye protection, gloves and protective clothing. Pour liquid decontamination solution over the spill and allow to sit at least 10 minutes. Typical decontamination solutions for isocyanate containing materials are: 20% Surfactant (Tergitol TMN 10) and

SECTION 7. Handling and storage

Precautions to be taken in handling and storing:

Observe label precautions. If combustible (flashpoint between 100 - 200 deg F), keep away from heat, sparks and flame. If flammable (flashpoint less than 100 deg F), also keep away from static discharges and other sources of ignition. If material is extremely flammable (flashpoint less than 20 deg F) or flammable, VAPORS MAY IGNITE EXPLOSIVELY OR CAUSE FLASH FIRE, respectively. Vapors may spread long distances. Prevent buildup of vapors. Close container after each use. Ground containers when pouring. Wash thoroughly after handling and before eating or smoking. Do not store above 120 deg F. If product is waterbased, do not freeze.

Other precautions:

If material is a coating: do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves.

SECTION 8. Exposure controls / personal protection

Engineering controls and work practices:

Ventilation

Provide sufficient ventilation in volume and pattern to keep contaminants below applicable exposure limits.

Respiratory protection

Do not breathe vapors or mists. If this product contains isocyanates or is used with an isocyanate activator/hardener, wear a positive-pressure, supplied-air respirator (NIOSH approved TC-19C) while mixing activator/hardener with paint, during application and until all vapors and spray mist are exhausted. If product does not contain or is not mixed with an isocyanate activator/hardener, a properly fitted air-purifying respirator with organic vapor cartridges (NIOSH TC-23C) and particulate filter (NIOSH TC-84A) may be used. Follow respirator manufacturer's directions for respirator use. Do not permit anyone without protection in the painting area. Individuals with history of lung or breathing problems or prior reaction to isocyanates should not use or be exposed vapor or spray mist if product contains or is mixed with isocyanate activators/hardeners.

Protective equipment

Personal protective equipment should be worn to prevent contact with eyes, skin or clothing.

Skin protection

Neoprene gloves and coveralls are recommended.

Eye protection

Desirable in all industrial situations. Goggles are preferred to prevent eye irritation. If safety glasses are substituted, include splash guard or side shields.

SECTION 9. Physical and chemical properties

Evaporation rate	Slower than Ether
Water solubility	NIL
Vapour density	Heavier than air
Approx. Boiling Range (°C)	55.6 - 210 °C
Approx. Freezing Range (°C)	-86.6 - -35 °C
Gallon Weight (lbs/gal)	7.09 - 7.52
Specific Gravity	0.85 - 0.90
Percent Volatile By Volume	63.00 - 92.08
Percent Volatile By Weight	54.29 - 88.30
Percent Solids By Volume	7.92 - 37.00
Percent Solids By Weight	11.70 - 45.71

SECTION 10. Stability and reactivity

Stability:
Stable

Incompatibility (materials to avoid):
None reasonably foreseeable

Hazardous decomposition products:
CO, CO2, smoke, and oxides of any heavy metals that are reported in "Composition, Information on Ingredients" section.

Hazardous Polymerization:
Will not occur.

Sensitivity to Static Discharge:
For flammable materials (flashpoint less than 100 deg F) and combustibles (flashpoint between 100-200 deg F) if heated above the flashpoint, solvent vapors in air may explode if static grounding and bonding is not used during transfer of this product.

Sensitivity to Mechanical Impact:
None known.

SECTION 11. Additional Information

93-005™ Alkyd resin, Carbon black(2.6%), Cobalt neodecanoate(0.5%*), Lead naphthenate(1.5%*), Long oil linseed alkyd, Medium mineral spirits, Toluene(2%*), Vm&p naphtha
GAL WT: 7.52 WT PCT SOLIDS: 45.71 VOL PCT SOLIDS: 37.00
SOLVENT DENSITY: 6.48 VOC LE: 4.1 VOC AP: 4.1
FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB
TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

304S™ Acetone, Amorphous silica - precipitated, Butyl acetate, Dimethyl glutarate, Epoxidized soybean oil, Ethylbenzene(2.0%*), Heptane, Methyl ethyl ketone, Toluene(1%*), Vinyl chloride - acetate polymer, Vm&p naphtha, Xylene(8%*)
GAL WT: 7.23 WT PCT SOLIDS: 14.93 VOL PCT SOLIDS: 9.48
SOLVENT DENSITY: 6.80 VOC LE: 5.9 VOC AP: 4.0
FLASH POINT: Below 20 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB
TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

305S™ Acetone, Butyl acetate, Dimethyl glutarate, Epoxidized soybean oil, Ethylbenzene(1.0 - 2.6%*), Heptane, Matting agents, Methyl ethyl ketone, Toluene(1 - 1%*), Vinyl chloride - acetate polymer, Vm&p naphtha, Xylene(8 - 9%*)
GAL WT: 7.13 WT PCT SOLIDS: 12.69 VOL PCT SOLIDS: 8.39
SOLVENT DENSITY: 6.80 VOC LE: 6.0 VOC AP: 4.1
FLASH POINT: Below 20 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB
TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

306S™ Acetone, Butyl acetate, Dimethyl glutarate, Epoxidized soybean oil, Ethylbenzene(2.1%*), Heptane, Methyl ethyl ketone, Toluene(1%*), Vinyl chloride - acetate polymer, Vm&p naphtha, Xylene(8%*)
GAL WT: 7.09 WT PCT SOLIDS: 11.70 VOL PCT SOLIDS: 7.92
SOLVENT DENSITY: 6.80 VOC LE: 6.1 VOC AP: 4.1
FLASH POINT: Below 20 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB
TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

Footnotes:

TSCA: in compliance = In compliance with TSCA Inventory requirements for commercial purposes.

ACGIH = American Conference of Governmental Industrial Hygienists.

IARC = International Agency for Research on Cancer.

NTP = National Toxicology Program.

OSHA = Occupational Safety and Health Administration.

PNOR = Particles not otherwise regulated.

PNOC = Particles not otherwise classified.

STEL = Short term exposure limit.

TWA = Time-weighted average.

TM = Is a Trademark of E.I. DuPont de Nemours Co.

* = Section 313 Supplier Notification: These chemicals are subject to the reporting requirements of Section 313 of the Emergency planning and Right-to-Know act of 1986 and of 40 CFR 372.

@ = Listed as a Clean Air Act Hazardous Air Pollutant.

= EPCRA Section 302 - Extremely hazardous substances.

Notice:

The information on 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.

Product Manager: Refinish Sales

Prepared by: Y. B. Yarbrough