

MATERIAL SAFETY DATA SHEET

LACQUER CLEARS



May 1, 1988

Section I

Manufacturer

E. I. du Pont de Nemours & Co. (Inc.)
Automotive Products Dept.
Wilmington, Delaware 19898
Telephone: Product information (800) 441-7515
Medical emergency (800) 441-3637
Transportation emergency (800) 424-9300
(CHEMTREC)

Product: 22S, 222S, 300S, 350S, 365B, 380S, 1541S, 1655S,
1672S, 1980S, 1999S

D.O.T. Hazard Class: Flammable Liquid
Paint UN 1263

Hazardous Materials Identification System:

H = 2, F = 3, R = 0.

Section II — Hazardous Ingredients (See Section X for ingredients listed by product code)

Ingredients	CAS No.	Vapor Pressure (20°C mm Hg.)	Exposure Limits*
1. Denatured ethyl alcohol	67-17-5	30	1000ppm-A,O
2. Butyl acetate	123-86-4	8	150ppm-A,O, 200ppm-A-(STEL)
3. N-butyl alcohol	71-36-3	5.5	100ppm-O, 25ppm-D, 50ppm-C,A
4. Acetone	67-64-1	184	750ppm-A, 1000ppm-O, 1000ppm-A-(STEL)
5. Methyl ethyl ketone	78-93-3	71	200ppm-A,O, 300ppm-A-(STEL)
6. Methyl isoamyl ketone	110-12-3	4.5	50ppm-A
7. Methyl alcohol	67-56-1	100	200ppm-A,O,D, 250ppm-A-(STEL)
8. Methyl isobutyl ketone	108-10-1	15.0	50ppm-A, 150ppm-O, 75ppm-A-(STEL)
9. Toluene	108-88-3	36.7	100ppm-A, 200ppm-O, 150ppm-A-(STEL) 300ppm-O-C 500ppm-O Max 10 Min
10. Isopropyl alcohol	67-63-0	33	400ppm-A,O, 500ppm-A-(STEL)
11. Propylene glycol methyl ether	107-98-2	10.9	100ppm-A,O,D
12. Dibasic esters			
a) Dimethyl glutarate	1119-40-0		
b) Dimethyl succinate	106-65-0	14 (at 100°C)	10mg/m ³ -D
c) Dimethyl adipate	627-93-0		
13. Ethylene glycol monobutyl ether	111-76-2	0.6	25ppm-A, 50ppm-O, 10ppm-D
14. Ethyl acetate	141-78-6	76	400ppm-A,O
15. Propylene glycol monomethyl ether acetate	108-65-6	3.8	Unknown

16. Ethylene glycol monobutyl ether acetate	112-07-02	0.3	25ppm-S, 20ppm-D Unknown
17. Pine oil	8002-09-3	1	100ppm-A,O, 150ppm-A-(STEL)
18. Xylene	1330-20-7	25	
19. Aromatic hydrocarbon	64742-95-6	10	25ppm-O, 50ppm-D
20. Butyl benzyl phthalate	85-68-7	0.8	5 mg/m ³ -D
21. VM&P naphtha	64742-89-8	15	100ppm-D; 300ppm-A; 500ppm-O
22. Amorphous silica	7631-86-9	None	10mg/m ³ -A, 15mg/m ³ -O, 6mg/m ³ -D
23. Acrylic resin	9011-14-7	None	Unknown

*A = ACGIH TLV, O = OSHA, D = Du Pont internal limit, S = Supplier Furnished L, STEL = Short Term Exposure Limit (15 mins.), C = Ceiling

Section III — Physical Data

Evaporation rate: Slower than ether
Solubility in Water: Miscible
Vapor Density: Heavier than air
Boiling Range: 54-225°F

Gal. Weight (#/Gal): 7.0-7.8
Volume % volatile: 70.9-97.6
Weight % volatile: 65.7-96.7
V.O.C. (#/Gal): 4.6-7.5

Section IV — Fire & Explosion Data

Flash point (Closed cup) 20-73°F
Approx. flammable limits: 0.2-36.5 percent
Extinguishing media: Water spray, foam, carbon dioxide, dry chemical

Special fire fighting procedures: Full protective equipment, including self-contained breathing apparatus, is recommended. Water from fog nozzles may be used to cool closed containers to prevent pressure build up.

Unusual fire & explosion hazards: 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 V — Health Hazard Data

General effects

Ingestion: Gastro-intestinal distress.

In the unlikely event of ingestion, call a physician immediately and have the names of ingredients available.

Inhalation: May cause nose and throat irritation. Repeated and prolonged overexposure to solvents may lead to permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are signs that solvent levels are too high.

If affected by inhalation of vapor or spray mist, remove to fresh air. If breathing difficulty persists, or occurs later, consult a physician.

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.

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 with soap and water. If irritation occurs, contact a physician.

Section V — Health Hazard Data — Continued

Specific effects

Butyl Acetate: Extremely high concentrations have caused blood changes and weakness in laboratory animals. N-Butyl Alcohol: Liquid splashes in the eye may result in chemical burns. Methyl Ethyl Ketone: High concentrations have caused embryotoxic effects in laboratory animals. Methyl Ethyl Ketone (MEK) has been demonstrated to potentiate (i.e., shorten the time of onset) the peripheral neuropathy caused by either N-Hexane or Methyl N-Butyl Ketone. MEK by itself has not been demonstrated to cause peripheral neuropathy. Liquid splashes in the eye may result in chemical burns. Methyl Isoamyl Ketone: Extremely high oral doses in laboratory animals have shown weight changes in various organs such as the liver, kidney and adrenal gland. In addition liver injury was observed. Methyl Alcohol: Excessive human exposure to Methanol may lead to fatigue, headache, anaesthetic, neurologic effects, and visual difficulties including blindness or death. Recurrent overexposure may result in liver and kidney injury. Can be absorbed through the skin in harmful amounts. Methyl Isobutyl Ketone: Recurrent overexposure may result in liver and kidney injury. Toluene: 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. Isopropyl Alcohol: Ingestion studies on laboratory animals showed that very high oral doses caused increased liver and kidney weights. High oral doses have caused anemia in laboratory animals. Propylene Glycol Methyl Ether: May cause temporary upper respiratory and/or lung irritation with cough, difficulty breathing, or shortness of breath. Can be absorbed through the skin in harmful amounts. Dibasic Esters: High airborne levels in rats have shown mild injury to the olfactory region of the nose. Ethylene Glycol Monobutyl Ether: Can be absorbed through the skin in harmful amounts. May cause injury to the kidneys, liver, blood and/or bone marrow. Repeated overexposure may result in damage to the blood. Eye contact may cause corneal injury. Ethyl Acetate: Prolonged and repeated high exposures of laboratory animals resulted in secondary anemia with an increase in white blood cells; fatty degeneration, cloudy swelling and an excess of blood in various organs. Propylene Glycol Monomethyl Ether Acetate: May cause moderate eye burning. Recurrent overexposure may result in liver and kidney injury. Ethylene Glycol Monobutyl Ether Acetate: Can be absorbed through the skin in harmful amounts. May destroy red blood cells. May cause abnormal kidney function. Pine Oil: Causes eye corrosion and permanent injury. Xylene: High concentrations have caused embryotoxic effects in laboratory animals. Recurrent overexposure may result in liver and kidney injury. Can be absorbed through the skin in harmful amounts. Butyl Benzyl Phthalate: Extremely high oral doses have caused tissue changes in the liver and testes of laboratory animals. Extremely high vapor aerosol doses have caused atrophy of the spleen and reproductive organs. Mice and rats were fed diets containing 0.6% and 1.2% of Butyl Benzyl Phthalate. At the highest dose leukemias of the blood forming systems were seen in female rats. No leukemia effect was seen in the female rats fed the lower level or in any of the mice. VM&P Naphtha: Laboratory studies with rats have shown that petroleum distillates 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 significant increases of kidney damage nor kidney or liver tumors.

Section VI — Reactivity Data

Stability: stable

Incompatibility: For 1541S, 1672S, 1999S, and 1655S — do not use with strong oxidizer. Fire or ignition may occur. For all other products — none reasonably foreseeable.

Hazardous decomposition products: CO, CO₂, smoke

Hazardous polymerization: will not occur

Section VII — Spill or Leak Procedures

Steps to be taken in case material is released or spilled: Ventilate area. Remove sources of ignition. Prevent skin contact and breathing of vapor. Wear a properly fitted vapor particulate respirator (NIOSH/MSHA TC-23C). Confine and remove with inert absorbant.

Waste disposal method: Do not allow material to contaminate ground water systems. Incinerate absorbed material in accordance with federal, state, and local requirements. Do not incinerate in closed containers.

Section VIII — Special Protection Information

Respiratory: Do not breathe vapors or mists.

Wear a properly fitted vapor/particulate respirator approved by NIOSH/MSHA (TC-23C) for use with paints during application and until all vapors and spray mists are exhausted. In confined spaces or in situations where continuous spray operations are typical or if proper respirator fit is not possible, wear a positive pressure, supplied-air respirator (TC-19C). In all cases, follow the respirator manufacturer's directions for respirator use. Do not permit anyone without protection in the painting area.

Ventilation: Provide sufficient ventilation in volume and pattern to keep contaminants below applicable OSHA requirements.

Protective clothing: Neoprene gloves and coveralls are recommended.

Eye protection: Desirable in all industrial situations. Include splash guards or side shields.

Section IX — Special Precautions

Precautions to be taken in handling and storing: Observe label precautions. Keep away from heat, sparks and flame. Close container after each use. Ground containers when pouring. Wash thoroughly after handling and before eating or smoking. Do not store above 120°F.

Section X — Hazardous Ingredients by Product Code

Product Code	Ingredients (See Section II)
22S	1, 8, 9, 10, 13, 15, 18, 23
222S	3, 4, 9, 10, 12, 14, 18, 21, 23
300S	3, 4, 5, 9, 10, 12, 14, 15, 18, 19, 21, 23
365B	2, 5, 9, 14, 18, 23
350S	5, 9, 15, 18, 23
380S	2, 4, 9, 10, 14, 15, 18, 20, 23
1541S	1, 3, 6, 7, 8, 9, 10, 18, 21, 22, 23
1655S	3, 7, 9, 10, 18, 19, 23
1672S	1, 3, 6, 7, 8, 9, 10, 18, 19, 21, 22, 23
1980S	4, 5, 9, 10, 11, 16, 17, 20, 23
1999S	3, 4, 7, 9, 10, 11, 18, 23

Notice: The data in this material safety data sheet relate only to the specific material designated herein and do not relate to use in combination with any other material or in any process.

"The following notice is required by California Proposition 65.

"Warning: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm."

Product Manager
Refinish Sales