



May 1, 1988

MATERIAL SAFETY DATA SHEET

ACRYLIC LACQUER PRIMERS AND SEALERS

000109

Section I**Manufacturer**

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

Product: 30S, 70S, 80S, 100S, 110S, 131S, 181S, 1984S, 1985S,
1986S, 2129S, 2184S

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

Hazardous Materials Identification Section:

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

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

Ingredients	CAS Number	Vapor Pressure (20°C mm Hg.)	Exposure Limits*
1. Denatured ethyl alcohol	64-17-5	30	1000ppm-A, O
2. Butyl acetate	123-86-4	8	150ppm-A, O; 200ppm-A-(STEL)
3. Acetone	67-64-1	184	750ppm-A; 1000ppm-O; 1000ppm-A-(STEL)
4. Methyl ethyl ketone	78-93-3	71	200ppm-A, O; 300ppm-A-(STEL)
5. Methyl isoamyl ketone	110-12-3	4.5	50ppm-A
6. Methyl alcohol	67-56-1	100	200ppm-A, O, D; 250ppm-A-(STEL)
7. Methyl isobutyl ketone	108-10-1	15	50ppm-A; 150ppm-O 75ppm-A-(STEL)
8. Methyl isobutyl carbinol	108-11-2	2.2	25ppm-A, O; 40ppm-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. Dibutyl phthalate	84-74-2	1	5.0 mg/m ³ -A
12. Propylene glycol methyl ether	107-98-2	10.9	100ppm-A
13. Ethyl acetate	141-78-6	76	400ppm-A, O
14. Ethylene glycol monobutyl ether acetate	112-07-2	0.3	25ppm-S, 20ppm-D
15. Pine oil	8002-09-3	1	Unknown
16. Xylene	1330-20-7	25	100ppm-A, O; 150ppm-A-(STEL)
17. Aromatic hydrocarbons	64742-95-6	10	25ppm-O; 50ppm-D
18. Butyl benzyl phthalate	85-68-7	0.8	5 mg/m ³ -D
19. VM&P naphtha	64742-89-8	15	100ppm-D; 300ppm-A; 500ppm-O
20. Heavy bodied raw linseed oil	8001-26-1	None	10 mg/m ³ -A
21. Zinc phosphate	7779-90-0	None	10 mg/m ³ -A, D; 15 mg/m ³ -O
22. Amorphous silica	7631-86-9	None	10 mg/m ³ -A; 15 mg/m ³ -O; 6 mg/m ³ -D
23. Barium sulfate	7727-43-7	None	10 mg/m ³ -A
24. Carbon black	1333-86-4	None	3/5 mg/m ³ -A, O
25. Hydrous magnesium silicate (talc)	14807-96-6	None	2.0 mg/m ³ -A-D; 5 mg/m ³ -O
26. Titanium dioxide	13463-67-7	None	10 mg/m ³ -A; 15 mg/m ³ -O
27. Zinc oxide	1314-13-2	None	10 mg/m ³ -A
28. Epoxy type polymer	25068-38-6	None	Unknown
29. Nitrocellulose	9004-70-0	None	Unknown
30. Acrylic resin	9011-14-7	None	Unknown
31. Ester gum	None	None	Unknown
32. Iron oxide	1309-37-1	None	Unknown
33. Acrylic polymer	25133-97-5	None	Unknown
34. Castor oil	68187-84-8	None	Unknown
35. Shellac	9009-59-3	None	Unknown
36. Soya lecithin	None	None	Unknown
37. Kaolin	58425-86-8	None	10mg/m ³ -A, 15mg/m ³ -O

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

Section III — Physical Data

Evaporation rate: Slower than ether Gal. wt. (#/gal): 7.5-11.3
Solubility in water: Miscible Volume % volatile: 59.6-90.7%
Vapor density: Heavier than air Weight % volatile: 37.3-86.1%
Boiling range: 54°F-340°F V.O.C. (#/gal): 3.8-6.0

Section IV — Fire & Explosion Data

Flash point (Closed Cup): 20-73°F

Approx. flammable limits: 0.2-36.5%

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 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.

Specific effects

Butyl Acetate: extremely high concentrations have caused blood changes and weakness in laboratory animals. *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. *Methyl Isobutyl Carbinol*: Male rats exposed to very high airborne levels showed an increase in kidney weights. These effects were not seen in male rats exposed to lower concentrations, or in female rats at the same level. Liquid splashes in the eye may result in chemical burns. Extremely high concentrations have caused blood changes and weakness in laboratory animals. *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. *Dibutyl Phthalate*: May cause moderate eye burning. Extremely high concentrations have caused embryotoxic effects in laboratory animals. High oral doses have caused damage to the sperm producing cells of the testes. Ingestion studies on laboratory animals showed that very high oral doses caused increased liver and kidney weights. *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. *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. *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 system 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. *Hydrous Magnesium Silicate (talc)*: Repeated and prolonged overexposure to talc may lead to typical X ray changes and chronic lung disease. *Titanium Dioxide*: In a lifetime inhalation test, lung cancers were found in some rats exposed to 250 mg/m³ respirable titanium dust. Analysis of the titanium dioxide concentrations in the rat's lungs showed that the lung clearance mechanism was overwhelmed and that the results at the massive 250 mg/m³ level are not relevant to the workplace. *Epoxy Type Polymer*: Repeated exposure may cause allergic skin rash, itching, swelling.

Section VI — Reactivity Data

Stability: stable

Incompatibility (materials to avoid): For 30, 70, 80S — do not use with strong oxidizer. Fire or ignition may occur. For all other products — none reasonably foreseeable.

Hazardous decomposition products: CO, CO₂, smoke, oxides of heavy metals reported in Section II

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°.

Other precautions: Do not sand, flame cut, braze or weld dry coating without a NIOSH/MSHA approved respirator or appropriate ventilation.

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.'"

Section X — Hazardous Ingredients by Product Code

Product Code	Ingredients (See Section II)
30S	1, 3, 6, 9, 10, 11, 19, 22, 25, 26, 29, 31
70S	2, 3, 6, 7, 9, 10, 11, 19, 24, 25, 29, 31
80S	2, 3, 6, 9, 10, 11, 19, 22, 24, 25, 29, 31, 32, 34
100S	9, 10, 13, 16, 23, 25, 26, 27, 30, 33, 37
110S	4, 9, 10, 13, 16, 23, 25, 27, 30
131S	9, 10, 13, 16, 18, 21, 25, 26, 33, 36
181S	9, 10, 13, 16, 18, 21, 24, 25, 32, 33, 36
1984S	2, 3, 4, 9, 10, 14, 16, 17, 18, 23, 25, 31, 32, 33
1985S	2, 3, 4, 9, 10, 14, 16, 17, 18, 19, 23, 26, 31, 32, 33
1986S	2, 3, 4, 9, 10, 14, 16, 17, 18, 19, 23, 25, 26, 31, 33
2129S	3, 4, 8, 9, 10, 12, 14, 15, 17, 18, 26, 28, 33
2184S	1, 2, 3, 5, 7, 9, 10, 11, 19, 20, 24, 29, 34, 35

Product Manager
Refinish Sales

MATERIAL SAFETY DATA SHEET



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ADDITIVES FOR TOPCOATS

Section I**Manufacturer**

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

Product: 189S, 209S, 259S, FEE, 903S, 4528S, 5450S, LF 5450S,
7007S, 929-5050

D.O.T. Hazard Class: Flammable Liquid
Driers, paint, liquid N.O.S. UN1168

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. Formaldehyde	50-00-0	Unknown	1.0ppm-A, 3.0ppm-O, 2.0ppm-A-(STEL), 5.0ppm-O
2. N-Butyl alcohol	71-36-3	5.5	100ppm-O, 25ppm-D, 50ppm-C-A
3. Toluene	108-88-3	36.7	100ppm-A, 200ppm-O, 150ppm-A-(STEL), 300ppm-C-O 500ppm-O Max 10 Min
4. Isopropyl alcohol	67-63-0	33	400ppm-A,O, 500ppm-A-(STEL)
5. 2,4-Pentanedione	123-54-6	7	Unknown
6. Xylene	1330-20-7	25	100ppm-A,O, 150ppm-A-(STEL)
7. Aromatic hydrocarbon	64742-95-6	10	25ppm-O, 50ppm-D
8. VM&P naphtha	64742-89-8	15	100ppm-D, 300ppm-A, 500ppm-O
9. Heavy naphtha	64742-48-9	None	100ppm-D
10. Medium mineral spirits	64742-88-7	10	100ppm-A,D, 500ppm-O
11. Amorphous silica	7631-86-9	None	10mg/m ³ -A, 15mg/m ³ -O, 6mg/m ³ -D
12. Cobalt octoate	7440-48-4	None	.05mg/m ³ -A 0.1mg/m ³ -O-S
13. Manganese naphthenate	1336-93-2	None	5mg/m ³ -C,A,O-Mn,
14. Lead	7439-92-1	None	150µg/m ³ -A, 50µg/m ³ -O
15. Tin	77-58-7	None	2mg/m ³ -D

16. Acrylic resin	9011-14-7	None	Unknown
17. Methyl ethyl ketone	78-93-3	76	200ppm-A-O, 300ppm-A-(STEL)
18. Propylene glycol monomethyl ether acetate	108-65-6	3.8	Unknown
19. Hydrous magnesium silicate (talc)	14807-96-6	None	2.0mg/m ³ -A-D, 5mg/m ³ -O 400ppm-A,O
20. Ethyl acetate	141-78-6	76	

*A = ACGIH TLV, O = OSHA, D = Du Pont internal Limit,
S = Supplier Furnished Limit, 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: 80-190°F
Gal. wt. (#/gal): 7.2-8.4

Volume % volatile: 55.8-99.7%
Weight % volatile: 44.5-99.7%
V.O.C. (#/gal): 3.2-8.3

Section IV — Fire & Explosion Data

Flash point (Closed Cup): 73-100°F
Approx. flammable limits: 0.9-12.7%
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 (See Also Section X Notes)**General effects**

Ingestion: Gastro-intestinal distress.

In the unlikely event of ingestion, call a physician immediately and have 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. These products may be used in combination with a hardener which contains an isocyanate. Exposure to isocyanates may cause asthma-like reactions with shortness of breath, wheezing, cough or lung sensitization. This effect may be delayed for several hours after exposure. Individuals with lung or breathing problems or prior reaction to isocyanates must not be exposed to vapors or spray mist of this product.

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.