MSDS NO. 18-1RS

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DUPONT
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May 1, 1988

MATERIAL SAFETY DATA SHEET

CRONAR™ TINTS, BALANCERS, BINDERS

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: Cronar™ Tints, Balancers, Binders
D.O.T. Hazard Class: Flammable Liquid
Paint UN 1263

Hazardous Materials Identification System:
810J, 811J, 813J, 814J, 816J: H = 2, F = 3, R = 1.
All others: H = 2, F = 3, R = 0.

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

Ingredients	CAS No.	Vapor Pressure (20°C mm Hg.)	Exposure Limits*
1. Butyl acetate	123-86-4	8	150ppm-A,O; 200ppm-A-(STEL)
2. Primary amyl acetate	628-63-7	4	100ppm-A
3. Propylene glycol mono-methyl ether acetate	108-65-5	3.8	Unknown
4. Xylene	1330-20-7	25	100ppm-A,O; 150ppm-A-(STEL)
5. Aromatic hydro-carbons	64742-95-6	10	25ppm-O; 50ppm-D
6. Medium mineral spirits	64742-88-7	10	100ppm-A,D; 500ppm-O
7. Acetone	67-64-1	184	750ppm-A; 1000ppm-O; 1000ppm-A-(STEL)
8. Methyl ethyl ketone	78-93-3	71	200ppm-A,O; 300ppm-A-(STEL)
9. Toluene	108-88-3	36.7	100 ppm-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. Ethyl acetate	141-78-6	76	400ppm-A,O
12. Diethyl phthalate	84-66-2	1	5.0mg/m³-A
13. Butyl benzyl phthalate	85-68-7	0.8	5.0mg/m³-D
14. Aluminum	7429-90-5	None	10mg/m³-A
15. Carbon black	1333-86-4	None	3.5mg/m³-A,O
16. Titanium dioxide	13463-67-7	None	10.0mg/m³-A; 15mg/m³-O
17. Mica	12001-26-2	None	3mg/m³-A,O
18. Methyl p-hydroxy benzoate	99-76-3	None	None
19. Acrylic resins	9011-14-7	None	Unknown
20. Cellulose acetate butyrate	9004-36-8	None	Unknown
21. Polyethylene/ vinyl acetate	None	None	Unknown
22. Monoazo pigment	None	None	Unknown
23. Iron oxide	1309-37-1	None	Unknown
24. Phthalocyanine blue pigment	147-14-8	None	10mg/m³-D
25. Dioxazine carbozole pigment	None	None	Unknown
26. Ferric ferrocyanide pigment	14038-43-8	None	Unknown
27. Anthraquinone pigment	None	None	Unknown
28. Chromium	7440-47-3	None	0.5mg/m³-A,O-Cr
29. Nickel, antimony, titanium yellow pigment	8007-18-9	None	0.5mg/m³-A,O-Sb
30. Isoindolinone pigment	None	None	Unknown
31. Tetrachloro-isonsolinone yellow pigment	None	None	Unknown
32. Quinacridone pigment	1047-16-1	None	10mg/m³-D
33. Perylene pigment	None	None	Unknown
34. Phthalocyanine green pigment	None	None	10mg/m³-D
35. Monoazo red pigment	None	None	Unknown
36. Silica alumina ceramic	None	None	Unknown
37. Aluminum benzoate	None	None	Unknown
38. Irgazin yellow	None	None	Unknown
39. Monastral maroon	None	None	Unknown

Section II — Hazardous Ingredient — Continued

40. Thioindigo pigment	None	None	Unknown
41. Monastral violet	None	None	Unknown
42. Ferrite yellow orange	None	None	Unknown

*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): 7.29-12.87
Solubility in water: Miscible	Volume % Volatile: 48.2-99.9%
Vapor density: Heavier than air	Weight % Volatile: 28.35-99.9%
Boiling Range: 54°F-302°F	V.O.C. (#/gal): 3.8-6.0

Section IV — Fire & Explosion Data

Flash point (Closed Cup): 73-100°F
Approx. flammable limits: 0-13.1%
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. *Propylene Glycol Monomethyl Ether Acetate:* May cause moderate eye burning. Recurrent overexposure may result in liver and kidney 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. *Mineral spirits:* 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. *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. *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. *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. *Diethyl Phthalate:* May cause eye irritation with discomfort, tearing, or blurred vision. *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 athrophy of the spleen and reproductive organs. Mice and rats were fed diets containing 0.6% and 1.2% of butyl benzyl phthlate. 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. *Nickel Carbonate:* Contact may cause skin irritation with discomfort or rash. May cause temporary upper respiratory and/or lung irritation with cough, difficulty breathing or shortness of breath. *Titanium Dioxide:* In a lifetime inhalation test, lung cancers were found in some rats exposed to 250 mg/m^3 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/m^3 level are not relevant to the workplace. *Mica:* Repeated and prolonged overexposure may lead to chronic lung disease. *Chromium:* Contact may cause skin irritation with discomfort or rash. *Nickel, antimony, titanium yellow pigment:* Antimony and nickel are incorporated into the crystal structure of titanium dioxide. As such they are chemically and biologically inert.

Section VI — Reactivity Data

Stability: stable
Incompatibility (materials to avoid): none reasonably foreseeable
Hazardous decomposition products: CO, CO_2, 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-23). 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

Section VIII — Special Protection Information — Continued

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 Ingedients by Product Code

Product Code	Ingredients (See Section II)
801J, 802J	2, 4, 17, 19
805J	1, 2, 4, 15, 19
806J	1, 2, 4, 15, 19, 37
807J	1, 4, 19
810J, 811J, 813J, 814J, 816J	1, 4, 5, 6, 14, 19
815J	1, 4, 14, 19, 36
820J, 845J,	1, 2, 4, 19, 25
821J	1, 2, 4, 19, 27
822J	1, 2, 4, 19, 26
826J, 827J, 828J, 829J	1, 2, 4, 19, 24
830J	1, 2, 4, 19, 34
831J	1, 4, 19, 34
832J	1, 2, 4, 19, 34
840J	1, 4, 19, 29
841J	1, 2, 4, 19, 31
843J, 853J, 859J	1, 2, 4, 19, 22
845J	1, 2, 4, 19, 38
846J	1, 2, 4, 19, 30
855J, 858J, 872J	1, 2, 4, 17, 19, 33
856J	1, 2, 4, 19, 35
857J	1, 2, 4, 19, 39
862J, 864J, 867J	1, 2, 4, 19, 32
865J	1, 2, 4, 19, 40
866J,	1, 2, 4, 19, 41
870J	1, 4, 19, 24
871J, 973J, 874J	1,2 4, 17, 19
880J	1, 4, 19, 28
881J, 884J, 890J, 891J, 893J	1, 4, 19, 23
882J	1, 4, 19, 42
892J	3, 4, 19, 20, 23
1850J	1, 4, 7, 9, 10, 11, 19, 20, 21
1860J	1, 4, 7, 8, 9, 10, 11, 13, 19, 20, 21
1888J	4, 9, 10, 12, 18, 19

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