

**MATERIAL SAFETY  
DATA SHEET**
**ENAMEL REDUCERS**
**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: Enamel Reducers**
**D.O.T. Hazard Class: Flammable Liquid**  
 Paint Related Material NA 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. Butyl acetate	123-86-4	8	150ppm-A, O, 200ppm-A-(STEL)
2. N-butyl alcohol	71-36-3	5.5	100ppm-O, 25ppm-D, 50ppm-C, A
3. Acetone	67-64-1	184	750ppm-A, 1000ppm-O, 1000ppm-A-(STEL)
4. Toluene	108-88-3	36.7	100ppm-A, 200ppm-O, 150ppm-A-(STEL), 300ppm-C-O 500ppm-O Max 10 Min
5. Isopropyl alcohol	67-63-0	33	400ppm-A, O, 500ppm-A-(STEL)
6. Diethylene glycol monobutyl ether	112-34-5	0.1	5.0ppm-D
7. Dibasic esters			
a) Dimethyl glutarate	1119-40-0		
b) Dimethyl succinate	106-65-0	14 (at 100°C)	10mg/m <sup>3</sup> -D
c) Dimethyl adipate	627-93-0		
8. Ethyl acetate	141-78-6	76	400ppm-A, O
9. Propylene glycol monomethyl ether acetate	108-65-6	3.8	Unknown
10. Ethylene glycol monobutyl ether acetate	112-07-2	0.3	25ppm-S, 20ppm-D 100ppm-A, O, 150ppm-A-(STEL)
11. Xylene	1330-20-7	25	
12. Aromatic hydrocarbon	64742-95-6	10	25ppm-O, 50ppm-D

13. VM&P naphtha	64742-89-8	15	100ppm-D, 300ppm-A, 500ppm-O
14. Medium mineral spirits	64742-88-7	10	100ppm-A, D, 500ppm-O
15. Heavy mineral spirits	64742-96-7	None	100ppm-D
16. Lead	7439-92-1	None	150µg/m <sup>3</sup> -A, 50µg/m <sup>3</sup> -O
17. Diisobutyl ketone	108-83-8	1.7	25ppm-A, 50ppm-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): 6.40-7.50
Solubility in water: Miscible	Volume % volatile: 99.6-100.0
Vapor density: Heavier than air	Weight % volatile: 99.4-100.0
Boiling Range: 54-245°F	V.O.C. (#/gal): 6.4-7.5

**Section IV — Fire & Explosion Data**

Flash point (Closed cup): Below 20°F: 1700S, Y3812S, Y3832S, 8022S, 8093S, 8096S, Y8508S, Y8522S, 8575S, 8585S  
 20-73°F: 3812S, 3864S, Y3864S, Y8034S, 8508S  
 73-100°F: 3832S, 8034S, 8100S, 8485S, 8522S  
 Above 100°F: 8595S

Approx. flammable limits: 0.6-13.1 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 &amp; 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. **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. **Diethylene Glycol Monobutyl Ether:** Contact may cause skin irritation with discomfort or rash. Extremely high concentrations have caused embryotoxic effects in laboratory animals. May cause abnormal kidney function. High doses in laboratory animals have shown non-specific effects such as irritation, weight loss, moderate blood changes. Tests for mutagenic activity in bacterial or mammalian cell cultures have been inconclusive. **Dibasic Esters:** High airborne levels in rats have shown mild injury to the olfactory region of the nose. **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. **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. **VM&P Naphtha Medium and Heavy 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. **Lead:** Overexposure 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: Limit (in  $\mu\text{g}/\text{m}^3$ ) = 400/hours worked in the day. Can be absorbed through the skin in harmful amounts. **Diisobutyl Ketone:** Extremely high oral and inhalation doses in laboratory animals have shown weight changes in various organs such as the liver, kidney, brain, heart and adrenal gland. In addition, liver and kidney injury were observed at the extremely high inhalation level. In another inhalation study there was a slight depression in the white blood cell count.

### Section VI — Reactivity Data

Stability: stable

Incompatibility (materials to avoid): none reasonably foreseeable  
Hazardous decomposition products: CO, CO<sub>2</sub>, 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.

When these products are used with a paint requiring isocyanate hardener or activator, wear a positive pressure supplied-air respirator (NIOSH/MSHA TC-19C approved) when mixing the hardener/activator with the paint, during application and until all vapor and spray mists are exhausted. Refer to the hardener/activator label instructions and MSDS for further information. When no isocyanate hardener or activator is used with these products, 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 respiratory 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.

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

## Section X — Hazardous Ingredients by Product Code

Product Code	Ingredients (See Section II)
1700S	1, 3, 4, 7, 12, 13
3812S	4, 13
Y3812S	3, 4, 5, 11, 13
3832S	11, 12, 13, 14
Y3832S	2, 3, 4, 12, 13, 14
3864S	11, 12, 13
Y3864S	4, 12, 13, 14
8022S	1, 3, 4, 6, 9, 10, 12, 13, 17
8034S	3, 4, 8, 10, 12, 13
Y8034S	3, 4, 8, 10, 12, 13
8093S	3, 4, 7, 9, 10, 13, 14
8096S	3, 4, 6, 7, 9, 10, 12, 13, 14
8100S	4, 7, 9, 10, 12, 14, 15
8485S	8, 10
8508S	4, 11, 13, 14, 16
Y8508S	3, 4, 5, 11, 13, 14, 16
8522S	11, 12, 14, 15
Y8522S	3, 4, 9, 12, 13, 14
8575S	4, 8, 13
8585S	4, 8, 9, 11, 13
8595S	9, 12

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