

**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: **Marine Fairing Compounds, Primers, Surfacers and Related Products**

DOT Shipping Name: See DOT Addendum.

Hazardous Materials Information: See Section 10.

INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
	67762-90-7	<0.0	A 10.0 mg/m3 Total Dust O None
Aromatic hydrocarbon	64742-95-6	10.0@25.0°C	D 50.0 ppm A None O None
Barium sulfate	7727-43-7	None	A 10.0 mg/m3 Total Dust A 5.0 mg/m3 Respirable Dust O 15.0 mg/m3 Total Dust O 5.0 mg/m3 Respirable Dust D 10.0 mg/m3 Total Dust D 5.0 mg/m3 8 & 12 hour TWA Respirable Dust

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**SECTION 2. Composition/information on ingredients**

INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
1,2,4-trimethyl benzene	95-63-6	7.0@44.4°C	A 25.0 ppm O 25.0 ppm
1,6-hexamethylene diisocyanate	822-06-0	0.0@25.0°C	A 5.0 ppb O None
2,4-pentanedione	123-54-6	9.0	D 5.0 ppm 8 & 12 hour TWA A None O None
2-ethylhexyl acetate	103-09-3	0.5	A None O None
4,6-dimethyl-2-heptanone	19549-80-5	None	A None O None
4-chlorobenzotrifluoride	98-56-6	7.6@25.0°C	D 20.0 ppm 8 & 12 hour TWA A None O None
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
Acrylic polymer	Not Avail	None	A None O None
Aliphatic polyisocyanate resin	28182-81-2	None	S 1.0 mg/m3 15 min STEL S 0.5 mg/m3 A None O None
Amorphous silica			

Benzyl alcohol	100-51-6	None	D 10.0 ppm 8 & 12 hour TWA A None O None
Bisphenol a/epichlorohydrin polymer	25036-25-3	4.3	A 10.0 mg/m3 Total Dust A 5.0 mg/m3 Respirable Dust O 15.0 mg/m3 Total Dust O 5.0 mg/m3 Respirable Dust
Bisphenol-epichlorohydrin type polymer	25068-38-6	0.0	A None O None
Butyl acetate	123-86-4	10.0	A 200.0 ppm 15 min STEL A 150.0 ppm O 150.0 ppm
Calcium carbonate	471-34-1	None	A 10.0 mg/m3 O 15.0 mg/m3 Total Dust O 5.0 mg/m3 Respirable Dust
Ceramic microspheres	66402-68-4	None	A 10.0 mg/m3 O 15.0 mg/m3
Cyclohexanamine, 4,4'-methylenebis-	1761-71-3	None	A None O None
Dibutyl phthalate	84-74-2	<0.0@14.7°C	A 5.0 mg/m3 O 5.0 mg/m3 D 5.0 mg/m3 8 & 12 hour TWA
Diisobutyl ketone	108-83-8	1.8	A 25.0 ppm O 50.0 ppm

INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS	INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
Epichlorohydrin-polyglycol	26142-30-3	1.4@80.0°C	A None O None				O 200.0 ppm D 300.0 ppm 15 min TWA
Epoxide resins, liquid	68609-97-2	<0.1	A None O None				D 200.0 ppm 8 & 12 hour TWA
Epoxy hardener	NotAvail	5.2	A None O None	Methyl isoamyl ketone	110-12-3	5.3	A None O None
Epoxy resin	25085-99-8	0.0@70.0°F	A None O None	Modified aliphatic amines	NotAvail	7.5@21.0°F	A None O None
Ethyl 3-ethoxy propionate	763-69-9	1.1@25.0°C	A None O None	N-butyl alcohol	71-36-3	5.6@68.0°F	A 20.0 ppm O 100.0 ppm D 50.0 ppm 15 min TWA D 25.0 ppm
Ethyl acetate	141-78-6	93.2@25.0°C	A 400.0 ppm O 400.0 ppm	Organic acid	NotAvail	None	A None O None
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	Para-nonylphenol	84852-15-3	None	A None O None
Ethylene diamine	107-15-3	68.6	A 10.0 ppm Skin O 10.0 ppm D 1.0 ppm 8 & 12 hour TWA Skin	Phenol	108-95-2	0.3	A 5.0 ppm O 5.0 ppm
Formaldehyde, polymer with benzeneamine	135108-88-2	0.6@21.0°C	A None O None	Phenol-formaldehyde,cross-linked,triethylenetream	32610-77-8	<1.0@21.0°C	A None O None
Formaldehyde polymer with toluene	NotAvail	<10.3@21.0°C	A None O None	Phenolic polymer	9003-35-4	None	A None O None
Glycidyl ether of cyclohexanedimethanol	14228-73-0	<1.0@25.0°C	A None O None	Polyamide	NotAvail	10.3@21.0°C	A None O None
Hydrous magnesium silicate	14807-96-6	None	A 2.0 mg/m3 Respirable Dust D 0.5 mg/m3 8 & 12 hour TWA Respirable Dust D 0.1 mg/m3 8 & 12 hour TWA O None	Propylene glycol methyl ether	107-98-2	11.2@77.0°F	A 150.0 ppm 15 min STEL A 100.0 ppm O None
Limestone (calcium carbonate)	1317-65-3	None	A 10.0 mg/m3 O 15.0 mg/m3 Total Dust O 5.0 mg/m3 Respirable Dust	Quartz-crystalline silica	14808-60-7	None	A 25.0 ug/m3 Respirable Dust O 0.3 mg/m3 Total Dust O 0.1 mg/m3 Respirable Dust D 0.1 mg/m3 Respirable Dust
Methyl amyl ketone	110-43-0	3.4	A 50.0 ppm O 100.0 ppm	Soda lime borosilicate glass	65997-17-3	None	A None O None
Methyl ethyl ketone	78-93-3	71.2	A 300.0 ppm 15 min STEL A 200.0 ppm	T-butyl acetate	540-88-5	None	A 200.0 ppm O 200.0 ppm
				Tetraethylenepentamine	112-57-2	None	A None O None
				Titanium dioxide	13463-67-7	None	A 10.0 mg/m3 O 15.0 mg/m3 Total Dust D 10.0 mg/m3

INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
Tofa, reaction products w/tepa	68953-36-6	None	Total Dust D 5.0 mg/m <sup>3</sup> Respirable Dust A None O None
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
Triethylenetetramine	112-24-3	0.0	D 1.0 ppm Skin A None O None
Unsaturated fatty acid polymer	68082-29-1	10.3@70.0°F	A None O None
Wollastonite	13983-17-0	None	D 2.0 Fibres/ml A None 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
Zinc phosphate	7779-90-0	None	O 5.0 mg/m <sup>3</sup> Respirable Dust A None

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:**

**2,4-pentanedione**

2,4-pentanedione, a component of this product, is regulated by the U.S. EPA, under a significant new use rule. It is a violation of federal law to sell or use this product in consumer applications, including to private individuals, schools, and vocational schools. Can be absorbed through the skin in harmful amounts. Repeated exposures to high concentrations has caused adverse health effects in laboratory animals. These effects involved the central nervous system, immune system, and the red blood cell forming system. No effect was seen at 100 ppm. The odor is disagreeable at a few ppm. Repeated or prolonged skin contact may cause any of the following: skin sensitization. Skin or eye contact may cause any of the following: irritation. Overexposure of this substance may cause effects on any of the following organs/systems: central nervous system, lungs, upper respiratory system, thymus.

**4-chlorobenzotrifluoride**

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: skin. Prolonged or repeated exposure may cause damage to any of the following organs/systems: kidneys, liver, thyroid. Potential skin sensitizer that may cause allergic reactions and contact dermatitis resulting in severe irritation, dryness, and cracking of the skin. Ingestion may cause any of the following: gastrointestinal irritation. Eye contact may cause any of the following: permanent eye injury. Inhalation may cause any of the following: stupor (central nervous system depression), respiratory tract irritation.

**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.

**Aliphatic polyisocyanate resin**

Overexposure may cause asthma-like reactions with shortness of breath, wheezing, cough, which may be permanent; or permanent lung sensitization. This effect may be delayed for several hours after exposure. The following medical conditions may be aggravated by exposure: asthma, skin disorders, respiratory disorders. Potential skin sensitizer that may cause allergic reactions and contact dermatitis resulting in severe irritation, dryness, and cracking of the skin. Skin or eye contact may cause any of the following: irritation.

**Aromatic hydrocarbon**

The following medical conditions may be aggravated by exposure: skin disorders. 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.

**Benzyl alcohol**

This substance may cause effects on any of the following organs/systems: central nervous system. Repeated or prolonged skin contact may cause any of the following: skin sensitization.

**Bisphenol a/epichlorohydrin polymer**

Genetic damage in bacterial cell cultures, but not observed in animals.

**Bisphenol-epichlorohydrin type polymer**

The following medical conditions may be aggravated by exposure: skin disorders. Vapor may be irritating at elevated temperatures. Repeated or prolonged skin contact may cause any of the following: allergic skin rash.

**Butyl acetate**

\*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 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.

#### **Cyclohexanamine, 4,4'-methylenebis-**

Skin contact may cause any of the following: severe irritation, burns. Eye contact may cause any of the following: burns, blindness. Inhalation of vapor may cause any of the following: bronchitis, lung injury.

#### **Dibutyl phthalate**

Extremely high concentrations have caused embryotoxic effects in laboratory animals.  
WARNING: This chemical is known to the State of California to cause birth defects or other reproductive harm.

#### **Diisobutyl ketone**

The following medical conditions may be aggravated by exposure: asthma, blood, dermatitis. Contact may cause skin irritation with discomfort or rash. Repeated exposure may cause allergic skin rash, itching, swelling. This substance may cause damage to any of the following organs/systems: eyes, kidneys, liver. 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. Liquid or vapor causes irritation, experienced as stinging, excess blinking and tear production, with excess redness and swelling of the conjunctiva.

#### **Epoxide resins, liquid**

The following medical conditions may be aggravated by exposure: allergies, eczema, skin disorders. Irritating to the mouth, throat and stomach. Potential skin sensitizer that may cause allergic reactions and contact dermatitis resulting in severe irritation, dryness, and cracking of the skin.

#### **Epoxy hardener**

Skin contact may cause any of the following: skin sensitization, skin irritation.

#### **Ethyl acetate**

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: eyes, respiratory system, skin. Tests in laboratory animals have shown effects on any of the following organs/systems: blood, kidneys, liver.

#### **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.

#### **Ethylene diamine**

Ingestion may cause any of the following: burns to mouth and stomach, aspiration leading to lung damage. Repeated or prolonged skin contact may cause any of the following: dermatitis, skin sensitization. Skin contact may cause any of the following: burns. Eye contact may cause any of the following: severe irritation, burns, corneal injury. Inhalation of high vapor concentrations may cause any of the following: lung injury. The following medical conditions may be aggravated by overexposure: asthma, dermatitis, pulmonary conditions. If absorbed through the skin, may be: harmful. Repeated or prolonged exposure may cause effects on any of the following organs/systems: kidneys, liver, respiratory system.

#### **Formaldehyde polymer with toluene**

This chemical is a formaldehyde donor. Formaldehyde is an IARC, NTP or

OSHA carcinogen and has shown mutagenic activity in laboratory cell culture tests. Formaldehyde has produced tumors in the nasal passages of laboratory animals when exposed to high concentrations for a two year period. IARC has concluded epidemiology studies found evidence of formaldehyde related nasopharyngeal cancer in humans and have classified formaldehyde as a confirmed human carcinogen. DuPont toxicologists have reviewed these studies and classified formaldehyde as a possible human carcinogen.

#### **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.

#### **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.

#### **N-butyl alcohol**

May cause abnormal blood forming function with anemia. Liquid splashes in the eye may result in chemical burns.

#### **Organic acid**

Has shown mutagenic activity in laboratory cell culture tests and in laboratory animal tests.

#### **Phenol**

Has shown mutagenic activity in laboratory cell culture tests. Can be absorbed through the skin in harmful amounts. This substance may cause effects on any of the following organs/systems: cardiovascular system, central nervous system, kidneys, liver. Skin contact may cause any of the following: severe irritation, burns. Eye contact may cause any of the following: severe irritation, permanent eye injury followed by blindness. Inhalation of vapor may cause any of the following: burns to respiratory system.

#### **Phenol-formaldehyde,cross-linked,triethylenetream**

This chemical is a formaldehyde donor. Formaldehyde is an IARC, NTP or OSHA carcinogen and has shown mutagenic activity in laboratory cell culture tests. Formaldehyde has produced tumors in the nasal passages of laboratory animals when exposed to high concentrations for a two year period. IARC has concluded epidemiology studies found evidence of formaldehyde related nasopharyngeal cancer in humans and have classified formaldehyde as a confirmed human carcinogen. DuPont toxicologists have reviewed these studies and classified formaldehyde as a possible human carcinogen.

#### **Phenolic polymer**

This chemical is a formaldehyde donor. Formaldehyde is an IARC, NTP or OSHA carcinogen and has shown mutagenic activity in laboratory cell culture tests. Formaldehyde has produced tumors in the nasal passages of laboratory animals when exposed to high concentrations for a two year period. IARC has concluded epidemiology studies found evidence of formaldehyde related nasopharyngeal cancer in humans and have classified formaldehyde as a confirmed human carcinogen. DuPont toxicologists have reviewed these studies and classified formaldehyde as a possible human carcinogen. Repeated or prolonged inhalation may cause any of the following: respiratory tract irritation.

#### **Propylene glycol methyl ether**

Tests in laboratory animals have shown effects on any of the following organs/systems: kidneys, liver. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

#### **Quartz-crystalline silica**

Is an IARC, NTP or OSHA carcinogen. Repeated overexposure to crystalline silica may lead to x-ray changes and chronic lung disease. Inhalation of high dust concentrations may cause: breathing difficulties, lung injury.

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

#### **T-butyl acetate**

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, gastrointestinal system, liver, skin.

#### **Tetraethylenepentamine**

Causes eye corrosion and permanent injury. Contact will cause moderate to severe redness and swelling, itching, tingling sensation, painful burning. Inhalation overexposure may cause lung injury, fluid in the lung, and difficulty in breathing.

#### **Titanium dioxide**

Is an IARC, NTP or OSHA carcinogen. In a lifetime inhalation test, lung cancers were found in some rats exposed to 250 mg/m<sup>3</sup> 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<sup>3</sup> level are not relevant to the workplace. Results of a DuPont epidemiology study showed that employees who had been exposed to Titanium Dioxide were at no greater risk of developing lung cancer than were employees who had not been exposed to Titanium dioxide. No pulmonary fibrosis was found in any of the employees and no association was observed between Titanium dioxide exposure and chronic respiratory disease or x-ray abnormalities. Based on the results of this study DuPont concludes that titanium dioxide will not cause lung cancer or chronic respiratory disease in humans at concentrations experienced in the workplace.

#### **Tofa, reaction products w/tepa**

Contact may cause skin irritation with discomfort or rash. May cause eye irritation with discomfort, tearing, or blurred vision.

#### **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.

#### **Triethylenetetramine**

Repeated overexposure may cause asthma-like reactions with shortness of breath, wheezing, cough or permanent lung sensitization. Material is irritating to mucous membranes and upper respiratory tract. Contact may cause skin burns. Repeated exposure may cause allergic skin rash, itching, swelling. Causes eye corrosion and permanent injury. Can be absorbed through the skin in harmful amounts.

#### **Wollastonite**

Long-term respiratory exposure exceeding TLV may damage the lungs, leading to bronchitis and impairment of lung capacity.

#### **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.

### **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 0.8 % 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 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 CO<sub>2</sub> 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 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)	46.1 - 340.1 °C
Approx. Freezing Range ( °C)	-93 - -73.5 °C
Gallon Weight (lbs/gal)	7.14 - 14.61
Specific Gravity	0.86 - 1.75
Percent Volatile By Volume	0.06 - 100.00
Percent Volatile By Weight	0.05 - 100.00
Percent Solids By Volume	0.00 - 99.94
Percent Solids By Weight	0.00 - 99.95

## SECTION 10. Stability and reactivity

### Stability:

Stable

### Incompatibility (materials to avoid):

None reasonably foreseeable

### Hazardous decomposition products:

CO, CO<sub>2</sub>, 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

**18100S™** 1,6-hexamethylene diisocyanate(0.2%\* @), 2-ethylhexyl acetate, Aliphatic polyisocyanate resin, Butyl acetate, Ethyl acetate  
**GAL WT: 8.94 WT PCT SOLIDS: 75.00 VOL PCT SOLIDS: 69.90**  
**SOLVENT DENSITY: 7.43 VOC LE: 2.2 VOC AP: 2.2**  
**FLASH POINT: 20° F to below 73° F H: 2 F: 3 R: 1 OSHA STORAGE: IB**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: NO**

**18101S™** 1,2,4-trimethyl benzene(2%\*), 1,6-hexamethylene diisocyanate(0.2%\* @), Aliphatic polyisocyanate resin, Aromatic hydrocarbon, Butyl acetate  
**GAL WT: 9.35 WT PCT SOLIDS: 90.00 VOL PCT SOLIDS: 87.23**  
**SOLVENT DENSITY: 7.29 VOC LE: 0.9 VOC AP: 0.9**  
**FLASH POINT: 73° F to below 100° F H: 2 F: 3 R: 1 OSHA STORAGE: IC**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: YES**

**18110S™** 4-chlorobenzotrifluoride, Acrylic polymer, Epoxy hardener, Ethylbenzene(0.7 - 1.8%\* @), Ethylene diamine(1.8% #), Methyl isoamyl ketone, N-butyl alcohol(12%\*), Para-nonylphenol, T-butyl acetate, Xylene(5 - 7%\* @)  
**GAL WT: 8.47 WT PCT SOLIDS: 51.09 VOL PCT SOLIDS: 51.61**  
**SOLVENT DENSITY: 8.45 VOC LE: 2.7 VOC AP: 2.2**  
**FLASH POINT: 73° F to below 100° F H: 3 F: 3 R: 1 OSHA STORAGE: IC**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: YES**

**18145S™** Amorphous silica, Benzyl alcohol, Cyclohexanamine, 4,4'-methylenebis-, Formaldehyde, polymer with benzeneamine, Organic acid, Polyamide, Soda lime borosilicate glass, Tetraethylenepentamine, Titanium dioxide(0.6%), Tofa, reaction products w/tepa, Triethylenetetramine, Unsaturated fatty acid polymer  
**GAL WT: 7.33 WT PCT SOLIDS: 73.71 VOL PCT SOLIDS: 77.97**  
**SOLVENT DENSITY: 8.68 VOC LE: 1.9 VOC AP: 1.9**  
**FLASH POINT: Above 200° F H: 2 F: 1 R: 0 OSHA STORAGE: IIIB**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: NO**

**18146S™** Amorphous silica, Benzyl alcohol, Formaldehyde, polymer with benzeneamine, Formaldehyde polymer with toluene, Hydrous magnesium silicate, Phenol(3%\* @), Phenol-formaldehyde, cross-linked, triethylenetetramine, Polyamide, Soda lime borosilicate glass, Tetraethylenepentamine, Titanium dioxide(6.7%), Triethylenetetramine

**GAL WT: 7.79 WT PCT SOLIDS: 64.19 VOL PCT SOLIDS: 68.08**  
**SOLVENT DENSITY: 5.44 VOC LE: 2.8 VOC AP: 2.8**  
**FLASH POINT: Above 200°F H: 2 F: 1 R: 0 OSHA STORAGE: IIIB**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: NO**

**18150S™** Barium sulfate, Benzyl alcohol, Dibutyl phthalate(7%\* @), Hydrous magnesium silicate, Modified aliphatic amines, Phenolic polymer, Polyamide, Tetraethylenepentamine  
**GAL WT: 13.47 WT PCT SOLIDS: 82.19 VOL PCT SOLIDS: 71.52**  
**SOLVENT DENSITY: 8.38 VOC LE: 2.4 VOC AP: 2.4**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: NO**

**18510S™** 1,2,4-trimethyl benzene(1%\*), 4,6-dimethyl-2-heptanone, Acetone, Acrylic polymer, Aromatic hydrocarbon, Barium sulfate, Bisphenol a/epichlorohydrin polymer, Calcium carbonate, Ceramic microspheres, Diisobutyl ketone, Epichlorohydrin-polyglycol, Ethylbenzene(0.3 - 0.9%\* @), Hydrous magnesium silicate, Methyl amyl ketone, N-butyl alcohol(4%\*), Titanium dioxide(17.7%), Wollastonite, Xylene(3 - 3%\* @), Zinc phosphate(3%\*)  
**GAL WT: 12.35 WT PCT SOLIDS: 74.93 VOL PCT SOLIDS: 55.08**  
**SOLVENT DENSITY: 6.86 VOC LE: 2.8 VOC AP: 2.6**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 1 OSHA STORAGE: IB**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: YES**

**18545S™** Amorphous silica, Bisphenol-epichlorohydrin type polymer, Glycidyl ether of cyclohexanedimethanol, Limestone (calcium carbonate), Quartz-crystalline silica(0.2%), Soda lime borosilicate glass, Titanium dioxide(0.3%)  
**GAL WT: 10.70 WT PCT SOLIDS: 99.95 VOL PCT SOLIDS: 99.94**  
**SOLVENT DENSITY: 7.74 VOC LE: 0.0 VOC AP: 0.0**  
**FLASH POINT: No measurable H: 2 F: 0 R: 0 OSHA STORAGE: N/A**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: YES**

**18550S™** Barium sulfate, Butyl acetate, Epoxide resins, liquid, Epoxy resin, Hydrous magnesium silicate, Soda lime borosilicate glass, Titanium dioxide(3.4%)  
**GAL WT: 14.61 WT PCT SOLIDS: 95.80 VOL PCT SOLIDS: 91.41**  
**SOLVENT DENSITY: 7.10 VOC LE: 0.6 VOC AP: 0.6**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: YES**

**18701S™** Ethyl 3-ethoxy propionate  
**GAL WT: 7.93 WT PCT SOLIDS: 0.02 VOL PCT SOLIDS: 0.02**  
**SOLVENT DENSITY: 7.93 VOC LE: 7.9 VOC AP: 7.9**  
**FLASH POINT: 100°F - 141°F H: 2 F: 2 R: 1 OSHA STORAGE: II**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: NO**

**18710S™** 4-chlorobenzotrifluoride, Acetone  
**GAL WT: 10.11 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 10.11 VOC LE: 0.0 VOC AP: 0.0**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 1 OSHA STORAGE: IB**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: NO**

**18750S™** Butyl acetate, Methyl ethyl ketone, N-butyl alcohol(20%\*), Propylene glycol methyl ether, Toluene(20%\* @)  
**GAL WT: 7.14 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 7.14 VOC LE: 7.1 VOC AP: 7.1**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IB**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: NO**

**18765S™** 2,4-pentanedione, 4-chlorobenzotrifluoride, Acetone, Ethyl acetate  
**GAL WT: 7.46 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 7.46 VOC LE: 7.8 VOC AP: 1.6**  
**FLASH POINT: Below 20°F H: 2 F: 3 R: 1 OSHA STORAGE: IB**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: NO**

**18775S™** 2,4-pentanedione, 4-chlorobenzotrifluoride, Acetone, Methyl

amyl ketone  
**GAL WT: 8.53 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 8.53 VOC LE: 7.4 VOC AP: 1.8**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 1 OSHA STORAGE: IB**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: NO**

**18785S™** 2,4-pentanedione, 2-ethylhexyl acetate, 4-chlorobenzotrifluoride, Acetone  
**GAL WT: 9.59 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00**  
**SOLVENT DENSITY: 9.59 VOC LE: 7.7 VOC AP: 1.7**  
**FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 1 OSHA STORAGE: IB**  
**TSCA STATUS: In Compliance PHOTO-CHEMICALLY REACTIVE: NO**

**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  
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