# 1. Identification of the substance/mixture and of the company/undertaking

Manufacturer: E. I. du Pont de Nemours and Company.

**DuPont Performance Coatings** 

Wilmington, DE 19898

Product information: (800) 441-7515 Telephone: Medical emergency: (800) 441-3637

Transportation emergency: (800) 424-9300 (CHEMTREC)

Product: Nason® Activators, Reducers, Solvents and Additives

See DOT Addendum. DOT Shipping Name:

Hazardous Materials Information: See Section 10.

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# 2. Composition/information on ingredients

INGREDIENTS	CAS#	VAPOR PRESSURE	EXPOSURE LIMITS
1,10-phenanthroline	66-71-7	4.2	A None, O None
1,2,4-trimethyl benzene	95-63-6	7.0@44.4°C	A 25.0 ppm, O 25.0 ppm
1,3,5-trimethyl benzene	108-67-8	None	A 25.0 ppm, O None
1,6-hexamethylene diisocyanate	822-06-0	0.0@25.0°C	A 5.0 ppb, O None
1-propenamine, 3-(trimethoxysilyl)-	13822-56-5	1.0	A None, O None
2,2,4-trimethyl-1,3-pentanediol diisobu-	6846-50-0	0.0	A None, O None
tyrate	0010000	0.0	7 110110, 3 110110
2,4,6- tri((dimethylamino)methyl) phenol	90-72-2	0.0@21.0°C	A None, O None
2,4-pentanedione	123-54-6	9.0	D 5.0 ppm 8 & 12 hour TWA, A None, O None
2-ethylhexanoic acid	149-57-5	0.0	A None, O None
2-ethylhexyl acetate	103-09-3	0.5	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,
Acetone	07-04-1	247.0@00.0 I	D 500.0 ppm 8 & 12 hour TWA
Acrylic polymer-A	NotAvail	None	A None, O None
Acrylic polymer-B	68153-83-3	None	A None, O None
	28182-81-2	None	
Aliphatic polyisocyanate resin	28182-81-2	None	S 1.0 mg/m3 15 min STEL, S 0.5 mg/m3, A None,
A variable budge soule on A	C4740 04 E	10.0	O None
Aromatic hydrocarbon-A	64742-94-5	10.0	D 100.0 ppm, A None, O None
Aromatic hydrocarbon-B	64742-95-6	10.0@25.0°C	D 50.0 ppm, A None, O None
Benzene, propyl-	103-65-1	None	A None, O None
Bis(1,2,2,6,6-pentamethyl-4-piperidinyl)	41556-26-7	None	A None, O None
sebacate	100.05.0	Nama	D 10 0 mm/m2 A Name O Name
Butanedioic acid, dimethyl ester	106-65-0	None	D 10.0 mg/m3, 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 A None, O None
Cobalt neodecanoate	27253-31-2	2.0@68.0°F	
Cyclohexane, methyl-	108-87-2	None	A 400.0 ppm, O 400.0 ppm
Dibutyl tin dilaurate	77-58-7	0.2@160.0°C	A 0.2 mg/m3 15 min STEL Sn, A 0.1 mg/m3 Sn, O 0.1 mg/m3 Sn
Dimethyl gluterate	1119-40-0	0.2	D 10.0 mg/m3, A None, O None
Dimethyl glutarate			
Epoxy resin	NotAvail	None	A None, O None
Ethyl 3-ethoxy propionate Ethyl acetate	763-69-9 141-78-6	2.0@25.0°C 93.2@25.0°C	A None, O None
•		93.2@25.0 C 46.0	A 400.0 ppm, O 400.0 ppm
Ethyl alcohol	64-17-5	46.0	A 1000.0 ppm, O 1000.0 ppm, D 1000.0 ppm 15 min STEL
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
Ethylene glycol monobutyl ether	111-76-2	0.6	A 20.0 ppm, O 50.0 ppm Skin, D 20.0 ppm 8 & 12 hour
Ethylerie glycol monobatyl ether	111-70-2	0.0	TWA
Ethylene glycol monobutyl ether acetate	112-07-2	0.3	A 20.0 ppm, D 20.0 ppm 8 & 12 hour TWA, O None
Glycols, polyethylene polypropylene,	9038-95-3	9.0	A None, O None
monobutyl ether	3000 30 0	0.0	A Hone, o Hone
Heptane	142-82-5	45.0@66.0 °F	A 500.0 ppm 15 min STEL, A 400.0 ppm, O 500.0 ppm
Hydrogen peroxide	7722-84-1	None	O 1.4 mg/m3, A None
Hydrotreated light naphtha	64742-49-0	33.7	A None, O None
Isobutyl alcohol	78-83-1	9.7@22.0°C	A 50.0 ppm, O 100.0 ppm
Isophorone diisocyanate	4098-71-9	None	A 5.0 ppb Skin, D 25.0 ppm 8 & 12 hour TWA, O None
Isophorone diisocyanate homopolymer	53880-05-0	None	A None, O None
Isopropyl alcohol	67-63-0	48.0	A 400.0 ppm 15 min STEL, A 200.0 ppm, O 400.0 ppm,
	0. 00 0		D 200.0 ppm 8 & 12 hour TWA
Manganese neodecanoate	27253-32-3	None	A 0.2 mg/m3 Mn, O 5.0 mg/m3 CEIL Mn
Medium mineral spirits	64742-88-7	0.3@68.0 °F	D 50.0 ppm 8 & 12 hour TWA, A None, O None
Methyl acetate	79-20-9	171.3@68.0°F	A 250.0 ppm 15 min STEL, A 200.0 ppm, O 200.0 ppm
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INGREDIENTS	CAS#	VAPOR	EXPOSURE LIMITS
Methyl alcohol	67-56-1	<b>PRESSURE</b> 127.7@21.2°C	A 250.0 ppm 15 min STEL Skin, A 200.0 ppm Skin,
			O 200.0 ppm, D 200.0 ppm 8 & 12 hour TWA Skin
Methyl amyl ketone	110-43-0	3.4	A 50.0 ppm, O 100.0 ppm
Methyl ethyl ketone	78-93-3	71.2	A 300.0 ppm 15 min STEL, A 200.0 ppm, O 200.0 ppm, D 300.0 ppm 15 min TWA, D 200.0 ppm 8 & 12 hour TWA
Methyl ethyl ketone peroxide	1338-23-4	None	A 1.5 mg/m3 CEIL, O 1.5 mg/m3 CEIL
Methyl isoamyl ketone	110-12-3	5.3	A None, O None
Methyl isobutyl ketone	108-10-1	15.1	A 75.0 ppm 15 min STEL, A 50.0 ppm, O 100.0 ppm
Methyl siloxane linear/cyclic	70131-67-8	<0.0	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 STEL, D 25.0 ppm 8 & 12 hour TWA
N-hexane	110-54-3	180.0@25.0°C	A 50.0 ppm Skin, O 500.0 ppm, D 25.0 ppm 8 & 12 hour TWA Skin
N-pentyl propionate	624-54-4	1.5	A None, O None
Naphthalene	91-20-3	1.0 <b>@</b> 52.6 °C	A 15.0 ppm CEIL Skin, A 10.0 ppm Skin, O 10.0 ppm, D 0.1 ppm 8 & 12 hour TWA
Octamethylcyclotetrasiloxane	556-67-2	None	A None, O None
P-toluenesulfonyl isocyanate	4083-64-1	0.0@50.0°C	A None, O None
Phosphoric acid	7664-38-2	0.0	A 3.0 mg/m3 15 min STEL, A 1.0 mg/m3, O 1.0 mg/m3, D 1.0 mg/m3 8 & 12 hour TWA
Poly(oxy-1,2-ethanediyl),.alpha [3-[3-(2h-benzotriazol-2-yl)-5-(1,1- dimethylethyl)-4-hydroxy phenyl	104810-48-2	None	A None, O None
Polyamide resin-A	68410-23-1	None	A None, O None
Polyamide resin-B	68424-41-9	None	A None, O None
Polyester resin	68604-67-1	None	A None, O None
Polyol resin	683270-62-4	None	A None, 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
Propylene glycol monomethyl ether acetate	108-65-6	3.8	D 10.0 ppm 8 & 12 hour TWA, A None, O None
Stoddard solvent	8052-41-3	None	A 100.0 ppm, O 500.0 ppm TWA, D 100.0 ppm 15 min STEL, D 50.0 ppm 8 & 12 hour TWA
Synthetic resin	27925-07-1	None	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 Skin
Ultraviolet absorber	104810-47-1	None	A None, O None
Vm&p naphtha	8032-32-4	17.9@68.0°F	A 300.0 ppm, D 100.0 ppm, O None
Water	7732-18-5	23.6	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
Zirconium octoate	22464-99-9	None	A 10.0 mg/m3 15 min STEL, A 5.0 mg/m3 Zr, O 10.0 mg/m3 15 min STEL, O 5.0 mg/m3 Zr

<sup>\*</sup>A=ACGIH, O=OSHA, D=DuPont, S=Suppliers. Limits are 8 hour TWA unless otherwise specified. Vapor pressure @ 20° C unless otherwise noted.

## 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 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:

## 1,10-phenanthroline

May cause eye irritation with discomfort, tearing, or blurred vision. Can be absorbed through the skin in harmful amounts.

## 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.

### 2-ethylhexanoic acid

May cause eye, skin and upper respiratory tract irritation.

#### 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.

#### Acrylic polymer-A

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: 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-A

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.

### Aromatic hydrocarbon-B

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.

## Bis(1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate

Repeated exposure may cause allergic skin rash, itching, swelling.

#### **Butyl** acetate

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.

## Cobalt neodecanoate

Some cobalt compounds may be possible human carcinogens.

## 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.

## Ethyl alcoho

The following medical conditions may be aggravated by exposure: liver disease. Tests in some laboratory animals indicate this compound may have embryotoxic activity. Tests in animals demonstrate reproductive toxicity. Ingestion may cause any of the following: stupor (central nervous system depression), gastrointestinal irritation. If absorbed through the skin, may be: harmful.

# 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 glycol monobutyl ether

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: bone marrow, central nervous system, eyes, gastrointestinal system, kidneys, liver, respiratory system, skin. 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. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother. If absorbed through the skin, may be: harmful.

## Ethylene glycol monobutyl ether acetate

May destroy red blood cells. May cause abnormal kidney function. May cause temporary upper respiratory and/or lung irritation with cough, difficult breathing, or shortness of breath. The following medical conditions may be aggravated by exposure: central nervous system, gastrointestinal system, kidneys, liver, dermatitis. Can be absorbed through the skin in harmful amounts. Overexposure may cause damage to any of the following organs/systems: blood, kidneys, liver. Ingestion may cause headache, nausea, vomiting, dizziness, and drowsiness.

# Glycols, polyethylene polypropylene, monobutyl ether

Contact may cause skin irritation with discomfort or rash.

# Heptane

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, respiratory system, skin. May cause central nervous system effects such as dizziness, headache, nausea, and loss of consciousness. 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. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

### Hydrogen peroxide

The following medical conditions may be aggravated by exposure: asthma, dermatitis, respiratory disease. Ingestion may cause any of the following: aspiration leading to lung damage. Skin contact may cause any of the following: severe redness, chemical burns. Vapor exposure may cause any of the following eye effects: conjunctivitis, burns, corneal injury, permanent eye injury. If absorbed through the skin, may be: moderately toxic. Ingestion may cause severe irritation or damage to any of the following: gastrointestinal system, stomach, mucous membranes. Inhalation may cause any of the following: respiratory tract irritation, pulmonary edema.

# Isobutyl alcohol

Has shown carcinogenic activity in laboratory animals at high doses. Significance to man is unknown. May cause irritation of the mucous membranes. May cause abnormal liver function. 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: bone marrow, liver. Prolonged skin contact may cause chemical burns. Liquid splashes in the eye may result in chemical burns.

### Isophorone diisocyanate

Overexposure may cause damage to any of the following organs/systems: lungs, skin. The following medical conditions may be aggravated by overexposure: asthma, eczema, skin disorders, respiratory disorders.

## Isophorone diisocyanate homopolymer

May cause temporary upper respiratory and/or lung irritation with cough, difficult breathing, or shortness of breath. 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. Repeated and prolonged overexposure may cause delayed effects involving the respiratory system. Repeated overexposure to isocyanates may cause lung injury, including a decrease in lung function, which may be permanent. Overexposure may cause damage to any of the following organs/systems: lungs, skin. The following medical conditions may be aggravated by overexposure: asthma, eye disorders, eczema, skin disorders, respiratory disorders.

### Isopropyl alcohol

The following medical conditions may be aggravated by exposure: dermatitis, respiratory disease. Developmental toxicity was seen in rat's offspring at doses that were maternally toxic. Contact will cause moderate to severe redness and swelling, itching, tingling sensation, painful burning. May cause injury to the cornea of the eyes. Prolonged or repeated exposure may cause damage to any of the following organs/systems: liver. Ingestion studies on laboratory animals showed that very high oral doses caused increased liver and kidney weights.

### Medium mineral spirits

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. This substance may cause damage to any of the following organs/systems: blood, central nervous system, eyes, kidneys, liver, lungs, reproductive system, skin. 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.

## Methyl alcohol

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: eyes, kidneys, liver, skin. 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. Ingestion may cause any of the following: blindness. Eye contact may cause any of the following: conjunctivitis, mild irritation, corneal opacity. Studies in laboratory animals have shown embryotoxic and developmental effects.

## 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 ethyl ketone peroxide

Recurrent overexposure may result in liver and kidney injury. Corrosive If ingested, may be: fatal. Eye contact may cause any of the following: permanent eye injury, blindness. Inhalation may cause any of the following: respiratory tract irritation. Skin or eye contact may cause any of the following: severe irritation, 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 isobutyl ketone

The following medical conditions may be aggravated by exposure: asthma, respiratory disease, eye disorders, pulmonary conditions, skin disorders. Repeated or prolonged skin contact may cause any of the following: dryness, cracking of the skin, defatting. Inhalation may cause any of the following: dizziness, stupor (central nervous system depression), drowsiness, respiratory tract irritation.

## N-butyl alcohol

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

## N-hexane

May cause abnormal kidney function. Can be absorbed through the skin in harmful amounts. N-hexane can produce peripheral polyneuropathy, a progressive disorder of the nervous system, such as muscular weakness and a loss of feeling in the extremities. With repeated high exposure, effects may become irreversible. Harmful if inhaled. Harmful or fatal if swallowed.

## Naphthalene

Is an IARC, NTP or OSHA carcinogen. Tests in some laboratory animals demonstrate carcinogenic activity. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: kidneys, liver. Recurrent overexposure may result in liver and kidney injury. WARNING: This chemical is known to the State of California to cause cancer.

# Octamethylcyclotetrasiloxane

Can irritate or burn eyes.

### P-toluenesulfonyl isocyanate

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.

### Phosphoric acid

Ingestion may cause any of the following: burns to mouth and stomach. Inhalation of vapor may cause any of the following: burns to respiratory system. Skin or eye contact may cause any of the following: burns.

## Poly(oxy-1,2-ethanediyl),.alpha.-[3-[3-(2h-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxy phenyl

The following medical conditions may be aggravated by exposure: jaundice, liver disease, allergies, kidney disorders, skin disorders. Skin contact may cause any of the following: allergic contact dermatitis.

#### 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.

## Propylene glycol monomethyl ether acetate

Recurrent overexposure may result in liver and kidney injury.

### Stoddard solvent

The following medical conditions may be aggravated by exposure: asthma, 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.

#### 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.

### Ultraviolet absorber

The following medical conditions may be aggravated by exposure: jaundice, liver disease, allergies, kidney disorders, skin disorders. Skin contact may cause any of the following: allergic contact dermatitis.

### Vm&p naphtha

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, respiratory system, skin. This substance may cause damage to any of the following organs/systems: central nervous system, kidneys, liver, lungs, skin and eyes. Material may be harmful or fatal if swallowed.

## **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.

## 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.

## 5. Fire-fighting measures

# Flash Point (Closed Cup):

See Section 11 for exact values.

Flammable Limits: LFL 0.5 % UFL 36.5 %

# **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.

### 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 C02 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.

### 7. Handling and storage

### Precautions to be taken in handling and storing:

Observe label precautions. If combustible (flashpoint between 38-93 deg C or 100 - 200 deg F), keep away from heat, sparks and flame. If flammable (flashpoint less than 38 deg C or 100 deg F), also keep away from static discharges and other sources of ignition. If material is extremely flammable (flashpoint less than - 8 deg C or 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 49 deg C or 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.

## 8. Exposure controls/personal protection

#### 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 and body protection:

Neoprene gloves and coveralls are recommended.

Desirable in all industrial situations. Goggles are preferred to prevent eye irritation. If safety glasses are substituted, include splash guard or side shields.

## 9. Physical and chemical properties

Evaporation rate Slower than Ether

Water solubility NIL

Vapour density Heavier than air Approx. Boiling Range (°C)  $55-203\,^{\circ}\mathrm{C}$ Approx. Freezing Range (°C) -134 - 203 °C 6.28409 - 11.1495 Gallon Weight (lbs/gal) Specific Gravity 0.75 - 1.34 Percent Volatile By Volume 12.58 - 100.00 Percent Volatile By Weight 5.00 - 100.00 Percent Solids By Volume 0.00 - 87.42 Percent Solids By Weight 0.00 - 95.00

## 10. Stability and reactivity

## Stability:

Stable.

# Incompatibility (materials to avoid):

None reasonably foreseeable.

## Hazardous decomposition products:

CO, C02, 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 38 deg C or 100 deg F) and combustibles (flashpoint between 38- 93 deg C or 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.

# 11. Additional Information

258-08<sup>TM</sup> Aliphatic polyisocyanate resin, Aromatic hydrocarbon-B, Methyl isobutyl ketone(38%\*@), N-pentyl propionate, P-toluenesulfonyl isocyanate(0.1%), Propylene glycol monomethyl ether acetate GAL WT: 7.92 WT PCT SOLIDS: 42.31 VOL PCT SOLIDS: 34.74 SOLVENT DENSITY: 7.04 VOC LE: 4.6 VOC AP: 4.6 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

258-09<sup>TM</sup> 1,2,4-trimethyl benzene(11%\*), 1,3,5-trimethyl benzene, Aliphatic polyisocyanate resin, Aromatic hydrocarbon-B, Benzene, propyl-, Ethyl 3-ethoxy propionate, Ethylene glycol monobutyl ether acetate(6%\*@), P-toluenesulfonyl isocyanate(0.1%) GAL WT: 8.35 WT PCT SOLIDS: 44.55 VOL PCT SOLIDS: 38.52 SOLVENT DENSITY: 7.49 VOC LE: 4.6 VOC AP: 4.6 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

441-00<sup>™</sup> Aromatic hydrocarbon-A, Ethylbenzene(0.1%\*@), Heptane, Isopropyl alcohol, Medium mineral spirits, N-hexane(1%\*@), Naphthalene(0.4%\*@), Toluene(13%\*@) GAL WT: 6.42 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.42 VOC LE: 6.4 VOC AP: 6.4 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-01<sup>™</sup> 1,2,4-trimethyl benzene(1%\*), Aromatic hydrocarbon-A, Aromatic hydrocarbon-B, Ethylbenzene(0.2%\*@), Ethylene glycol monobutyl ether(2%\*), Isopropyl alcohol, Medium mineral spirits, Naphthalene(0.3%\*@), Toluene(12%\*@) GAL WT: 6.68 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.68 VOC LE: 6.7 VOC AP: 6.7 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-02<sup>TM</sup> Aromatic hydrocarbon-A, Cyclohexane, methyl-, Heptane, Isopropyl alcohol, Medium mineral spirits, N-hexane(2%\*@), Naphthalene(0.4%\*@), Toluene(15%\*@), Vm&p naphtha GAL WT: 6.28 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.28 VOC LE: 6.3 VOC AP: 6.3 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-05<sup>™</sup> 1,2,4-trimethyl benzene(2%\*), Aromatic hydrocarbon-B, Ethylbenzene(0.4%\*@), Heptane, Medium mineral spirits, Naphthalene(0.1%\*@), Toluene(7%\*@) GAL WT: 6.49 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.49 VOC LE: 6.5 VOC AP: 6.5 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-20<sup>™</sup> Acetone, Ethyl 3-ethoxy propionate, Ethylbenzene(0.5%\*@), Heptane, N-hexane(1%\*@), Toluene(22%\*@), Xylene(2%\*@) GAL WT: 6.63 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.63 VOC LE: 6.6 VOC AP: 4.8 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

441-21<sup>™</sup> Acetone, Butyl acetate, Ethyl 3-ethoxy propionate, Ethylbenzene(1.0%\*@), Heptane, N-hexane(1%\*@), Toluene(16%\*@), Xylene(4%\*@) GAL WT: 6.71 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.71 VOC LE: 6.7 VOC AP: 5.3 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

441-22<sup>™</sup> 1,2,4-trimethyl benzene(2%\*), Acetone, Aromatic hydrocarbon-B, Butyl acetate, Ethyl 3-ethoxy propionate, Ethylene glycol monobutyl ether acetate(8%\*@), Heptane, N-hexane(1%\*@), Toluene(15%\*@) GAL WT: 6.91 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.91 VOC LE: 6.9 VOC AP: 6.3 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

441-29<sup>™</sup> Butyl acetate, Ethyl 3-ethoxy propionate, Ethylbenzene(1.1%\*@), Ethylene glycol monobutyl ether acetate(12%\*@), Methyl ethyl ketone, Toluene(9%\*@), Vm&p naphtha, Xylene(4%\*@) GAL WT: 7.40 WT PCT SOLIDS: 0.01 VOL PCT SOLIDS: 0.01 SOLVENT DENSITY: 7.40 VOC LE: 7.4 VOC AP: 7.4 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-43<sup>TM</sup> Ethyl alcohol, N-butyl alcohol(80%\*), Phosphoric acid, Water GAL WT: 6.86 WT PCT SOLIDS: 2.23 VOL PCT SOLIDS: 0.93 SOLVENT DENSITY: 6.77 VOC LE: 6.7 VOC AP: 6.6 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-49<sup>™</sup> Butanedioic acid, dimethyl ester, Dimethyl glutarate, Ethyl 3-ethoxy propionate, Ethylene glycol monobutyl ether acetate(20%\*@) GAL WT: 7.97 WT PCT SOLIDS: 0.02 VOL PCT SOLIDS: 0.01 SOLVENT DENSITY: 7.97 VOC LE: 8.0 VOC AP: 8.0 FLASH POINT: 100 °F - 141 °F H: 2 F: 2 R: 1 OSHA STORAGE: II TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-55<sup>™</sup> Acetone, Ethyl acetate, Ethyl alcohol, Heptane, Methyl alcohol(1%\*@), N-butyl alcohol(39%\*), Phosphoric acid, Toluene(1%\*@), Water GAL WT: 6.81 WT PCT SOLIDS: 3.84 VOL PCT SOLIDS: 1.59 SOLVENT DENSITY: 6.66 VOC LE: 6.5 VOC AP: 5.0 FLASH POINT: Below 20 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-60<sup>™</sup> Acetone GAL WT: 6.61 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.61 VOC LE: 0.0 VOC AP: 0.0 FLASH POINT: Below 20 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-61<sup>™</sup> Acetone GAL WT: 6.61 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.61 VOC LE: 0.0 VOC AP: 0.0 FLASH POINT: Below 20 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-62<sup>TM</sup> Acetone, Butyl acetate, Methyl amyl ketone GAL WT: 6.67 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.67 VOC LE: 7.1 VOC AP: 1.0 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-66<sup>TM</sup> 4-chlorobenzotrifluoride, Acetone GAL WT: 8.75 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 8.75 VOC LE: 0.0 VOC AP: 0.0 FLASH POINT: Below 20 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-68<sup>TM</sup> 4-chlorobenzotrifluoride, Acetone GAL WT: 10.43 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 10.43 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-CHEMICALY REACTIVE: NO

441-69<sup>™</sup> 4-chlorobenzotrifluoride GAL WT: 11.15 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 11.15 VOC LE: 0.0 VOC AP: 0.0 FLASH POINT: 100 °F - 141 °F H: 1 F: 2 R: 1 OSHA STORAGE: II TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-72<sup>™</sup> 2-ethylhexyl acetate, Acetone, Cyclohexane, methyl-, Heptane, Hydrotreated light naphtha GAL WT: 6.44 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.44 VOC LE: 6.4 VOC AP: 5.8 FLASH POINT: Below 20 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

441-83<sup>™</sup> 4-chlorobenzotrifluoride, Methyl acetate, Methyl amyl ketone, Methyl ethyl ketone, Synthetic resin GAL WT: 8.72 WT PCT SOLIDS: 57.01 VOL PCT SOLIDS: 54.70 SOLVENT DENSITY: 8.31 VOC LE: 1.9 VOC AP: 1.5 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

481-06<sup>TM</sup> Acetone, Butyl acetate, Ethylene glycol monobutyl ether(3%\*), Heptane, Isopropyl alcohol, Propylene glycol monomethyl ether acetate, Toluene(22%\*@) GAL WT: 6.73 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.73 VOC LE: 6.8 VOC AP: 4.8 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

481-16<sup>™</sup> Acetone, Ethylbenzene(0.8%\*@), Methyl alcohol(20%\*@), Toluene(30%\*@), Vm&p naphtha, Xylene(3%\*@) GAL WT: 6.78 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.78 VOC LE: 6.9 VOC AP: 4.4 FLASH POINT: Below 20 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

481-18™ Acetone, Butyl acetate, Ethylbenzene(1.3%\*@), Methyl alcohol(3%\*@), Toluene(17%\*@), Vm&p naphtha, Xylene(5%\*@) GAL WT: 6.69 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.69 VOC LE: 6.7 VOC AP: 3.9 FLASH POINT: Below 20 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

481-21<sup>™</sup> Acetone, Vm&p naphtha GAL WT: 6.60 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00 SOLVENT DENSITY: 6.60 VOC LE: 6.2 VOC AP: 0.2 FLASH POINT: Below 20 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

483-08<sup>™</sup> 1,2,4-trimethyl benzene(4%\*), Aromatic hydrocarbon-B, Butyl acetate, Ethyl 3-ethoxy propionate, Ethylbenzene(0.3%\*@), Isophorone diisocyanate(0.3% #\*), Isophorone diisocyanate homopolymer GAL WT: 8.06 WT PCT SOLIDS: 40.01 VOL PCT SOLIDS: 33.76 SOLVENT DENSITY: 7.20 VOC LE: 4.8 VOC AP: 4.8 FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

483-11<sup>™</sup> 1,2,4-trimethyl benzene(1%\*), 1,6-hexamethylene diisocyanate(0.1%\*@), Aliphatic polyisocyanate resin, Aromatic hydrocarbon-B, Butyl acetate, Ethylene glycol monobutyl ether acetate(3%\*@), Propylene glycol monomethyl ether acetate, Toluene(8%\*@) GAL WT: 9.01 WT PCT SOLIDS: 75.36 VOL PCT SOLIDS: 70.38 SOLVENT DENSITY: 7.48 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-CHEMICALY REACTIVE: YES

483-13<sup>™</sup> 1,2,4-trimethyl benzene(2%\*), Aromatic hydrocarbon-B, Butyl acetate, Ethyl 3-ethoxy propionate, Ethylbenzene(0.7%\*@), Glycols, polyethylene polypropylene, monobutyl ether, Isophorone diisocyanate(0.1% #\*), Isophorone diisocyanate(0.2% #\*), Isophorone diisocyanate homopolymer, Toluene(9%\*@), Xylene(2%\*@) GAL WT: 7.68 WT PCT SOLIDS: 20.86 VOL PCT SOLIDS: 16.98 SOLVENT DENSITY: 7.28 VOC LE: 6.1 VOC AP: 6.1 FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

483-14<sup>TM</sup> 1,2,4-trimethyl benzene(2%\*), Aromatic hydrocarbon-B, Butyl acetate, Ethylbenzene(0.8%\*@), Glycols, polyethylene polypropylene, monobutyl ether, Isophorone diisocyanate(0.1% #\*), Isophorone diisocyanate homopolymer, Toluene(9%\*@), Xylene(3%\*@) GAL WT: 7.67 WT PCT SOLIDS: 21.33 VOL PCT SOLIDS: 17.36 SOLVENT DENSITY: 7.26 VOC LE: 6.0 VOC AP: 6.0 FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

483-15<sup>™</sup> 1,2,4-trimethyl benzene(2%\*), 1,6-hexamethylene diisocyanate(0.2%\*@), Aliphatic polyisocyanate resin, Aromatic hydrocarbon-B, 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: 100 °F - 141 °F H: 2 F: 2 R: 1 OSHA STORAGE: II TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

483-18<sup>™</sup> 2,4-pentanedione GAL WT: 8.14 WT PCT SOLIDS: 0.20 VOL PCT SOLIDS: 0.19 SOLVENT DENSITY: 8.14 VOC LE: 8.1 VOC AP: 8.1 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

483-19<sup>™</sup> Butyl acetate, N-butyl alcohol(27%\*), Polyamide resin-B, Propylene glycol methyl ether, Toluene(12%\*@), Vm&p naphtha GAL WT: 7.28 WT PCT SOLIDS: 16.07 VOL PCT SOLIDS: 13.70 SOLVENT DENSITY: 7.08 VOC LE: 6.1 VOC AP: 6.1 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

483-20<sup>™</sup> 1-propenamine, 3-(trimethoxysilyl)-, 2,4,6- tri((dimethylamino)methyl) phenol, Acetone, Isobutyl alcohol, Isopropyl alcohol, Methyl amyl ketone, Methyl ethyl ketone, Methyl isobutyl ketone(17%\*@), N-pentyl propionate, Polyamide resin-A, Propylene glycol monomethyl ether acetate, Toluene(7%\*@) GAL WT: 7.03 WT PCT SOLIDS: 19.72 VOL PCT SOLIDS: 16.83 SOLVENT DENSITY: 6.79 VOC LE: 5.6 VOC AP: 5.3 FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 2 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

483-30<sup>™</sup> 1,2,4-trimethyl benzene(1%\*), 1,6-hexamethylene diisocyanate(0.1%\*@), Aliphatic polyisocyanate resin, Aromatic hydrocarbon-B, Butyl acetate GAL WT: 8.60 WT PCT SOLIDS: 61.04 VOL PCT SOLIDS: 54.39 SOLVENT DENSITY: 7.33 VOC LE: 3.4 VOC AP: 3.3 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

483-35<sup>™</sup> Acetone, Epoxy resin, Ethylbenzene(2.5%\*@), Methyl acetate, Methyl isoamyl ketone, N-butyl alcohol(5%\*), Xylene(10%\*@) GAL WT: 7.32 WT PCT SOLIDS: 38.30 VOL PCT SOLIDS: 33.37 SOLVENT DENSITY: 6.76 VOC LE: 2.9 VOC AP: 1.7 FLASH POINT: Below 20 ° F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

483-44<sup>™</sup> 1,2,4-trimethyl benzene(6%\*), 1,3,5-trimethyl benzene, Aromatic hydrocarbon-B, Butyl acetate, Ethylbenzene(0.5%\*@), Isophorone diisocyanate(0.5% #\*), Isophorone diisocyanate homopolymer GAL WT: 8.87 WT PCT SOLIDS: 70.50 VOL PCT SOLIDS: 64.04 SOLVENT DENSITY: 7.28 VOC LE: 2.6 VOC AP: 2.6 FLASH POINT: 73 °F to below 100 °F H: 3 F: 2 R: 1 OSHA STORAGE: IC TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

483-45<sup>™</sup> Epoxy resin, Ethylbenzene(5.3%\*@), Methyl acetate, Methyl isoamyl ketone, N-butyl alcohol(9%\*), Xylene(21%\*@) GAL WT: 7.75 WT PCT SOLIDS: 54.80 VOL PCT SOLIDS: 50.51 SOLVENT DENSITY: 7.05 VOC LE: 3.4 VOC AP: 3.3 FLASH POINT: 73 °F to below 100 °F H: 2 F: 3 R: 0 OSHA STORAGE: IC TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES

- 483-50<sup>™</sup> 1,2,4-trimethyl benzene(9%\*), 1,3,5-trimethyl benzene, Aromatic hydrocarbon-A, Aromatic hydrocarbon-B, Benzene, propyl-, Butyl acetate, Ethylbenzene(0.3%\*@), Isophorone diisocyanate(0.3% #\*), Isophorone diisocyanate homopolymer, Methyl amyl ketone, Methyl isobutyl ketone(5%\*@), Naphthalene(0.6%\*@) GAL WT: 7.86 WT PCT SOLIDS: 39.07 VOL PCT SOLIDS: 32.16 SOLVENT DENSITY: 7.10 VOC LE: 4.8 VOC AP: 4.8 FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES
- 483-52<sup>™</sup> 1,2,4-trimethyl benzene(1%\*), 1,6-hexamethylene diisocyanate(0.1%\*@), Aliphatic polyisocyanate resin, Aromatic hydrocarbon-B, Butyl acetate, Ethylene glycol monobutyl ether acetate(3%\*@), Propylene glycol monomethyl ether acetate, Toluene(8%\*@) GAL WT: 9.01 WT PCT SOLIDS: 75.36 VOL PCT SOLIDS: 70.38 SOLVENT DENSITY: 7.48 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-CHEMICALY REACTIVE: YES
- 483-54<sup>™</sup> 2,4-pentanedione, Dibutyl tin dilaurate GAL WT: 8.14 WT PCT SOLIDS: 1.00 VOL PCT SOLIDS: 0.94 SOLVENT DENSITY: 8.13 VOC LE: 8.1 VOC AP: 8.1 FLASH POINT: 73 °F to below 100 °F H: 2 F: 3 R: 0 OSHA STORAGE: IC TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO
- 483-56<sup>™</sup> 1,2,4-trimethyl benzene(2%\*), 1,6-hexamethylene diisocyanate(0.1%\*@), Aliphatic polyisocyanate resin, Aromatic hydrocarbon-B, Butyl acetate, Ethylbenzene(0.2%\*@), Isophorone diisocyanate(0.2% #\*), Isophorone diisocyanate homopolymer GAL WT: 9.26 WT PCT SOLIDS: 90.33 VOL PCT SOLIDS: 87.42 SOLVENT DENSITY: 7.28 VOC LE: 0.9 VOC AP: 0.9 FLASH POINT: 73 °F to below 100 °F H: 3 F: 3 R: 1 OSHA STORAGE: IC TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES
- 483-57<sup>™</sup> 1,2,4-trimethyl benzene(2%\*), 1,6-hexamethylene diisocyanate(0.1%\*@), Aliphatic polyisocyanate resin, Aromatic hydrocarbon-B, Butyl acetate, Ethylbenzene(0.2%\*@), Isophorone diisocyanate(0.2% #\*), Isophorone diisocyanate homopolymer GAL WT: 9.26 WT PCT SOLIDS: 90.33 VOL PCT SOLIDS: 87.42 SOLVENT DENSITY: 7.28 VOC LE: 0.9 VOC AP: 0.9 FLASH POINT: 73 °F to below 100 °F H: 3 F: 3 R: 1 OSHA STORAGE: IC TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES
- 483-65<sup>™</sup> 1,2,4-trimethyl benzene(5%\*), 1,3,5-trimethyl benzene, Aromatic hydrocarbon-B, Butyl acetate, Ethylbenzene(0.4%\*@), Isophorone diisocyanate(0.4% #\*), Isophorone diisocyanate(0.5% #\*), Isophorone diisocyanate homopolymer, Methyl isobutyl ketone(22%\*@) GAL WT: 8.13 WT PCT SOLIDS: 54.91 VOL PCT SOLIDS: 46.74 SOLVENT DENSITY: 6.98 VOC LE: 3.7 VOC AP: 3.7 FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES
- 483-70<sup>TM</sup> Aliphatic polyisocyanate resin, Butyl acetate, Methyl isobutyl ketone(37%\*@), N-pentyl propionate, P-toluenesulfonyl isocyanate(0.2%), Propylene glycol monomethyl ether acetate GAL WT: 7.94 WT PCT SOLIDS: 42.22 VOL PCT SOLIDS: 34.58 SOLVENT DENSITY: 7.01 VOC LE: 4.6 VOC AP: 4.6 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES
- 483-71<sup>TM</sup> 1,2,4-trimethyl benzene(11%\*), 1,3,5-trimethyl benzene, Aliphatic polyisocyanate resin, Aromatic hydrocarbon-B, Benzene, propyl-, Ethyl 3-ethoxy propionate, Ethylene glycol monobutyl ether acetate(6%\*@), P-toluenesulfonyl isocyanate(0.2%) GAL WT: 8.34 WT PCT SOLIDS: 44.01 VOL PCT SOLIDS: 37.97 SOLVENT DENSITY: 7.49 VOC LE: 4.7 VOC AP: 4.7 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES
- 483-74<sup>™</sup> 1,2,4-trimethyl benzene(5%\*), 1,3,5-trimethyl benzene, Aromatic hydrocarbon-B, Bis(1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate, Butyl acetate, Ethyl 3-ethoxy propionate, Ethylbenzene(0.4%\*@), Isophorone diisocyanate(0.4% #\*), Isophorone diisocyanate homopolymer GAL WT: 8.53 WT PCT SOLIDS: 59.75 VOL PCT SOLIDS: 53.65 SOLVENT DENSITY: 7.52 VOC LE: 3.4 VOC AP: 3.4 FLASH POINT: 100 °F 141 °F H: 3 F: 2 R: 1 OSHA STORAGE: II TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES
- 483-77<sup>™</sup> 1,6-hexamethylene diisocyanate(0.2%\*@), Aliphatic polyisocyanate resin, Aromatic hydrocarbon-A, Butyl acetate, Ethyl 3-ethoxy propionate, Ethylbenzene(1.1%\*@), Naphthalene(0.2%\*@), P-toluenesulfonyl isocyanate(0.1%), Xylene(5%\*@) GAL WT: 8.18 WT PCT SOLIDS: 34.16 VOL PCT SOLIDS: 29.31 SOLVENT DENSITY: 7.61 VOC LE: 5.4 VOC AP: 5.4 FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES
- 483-78<sup>™</sup> Aliphatic polyisocyanate resin, Butyl acetate, Methyl isobutyl ketone(37%\*@), N-pentyl propionate, Propylene glycol monomethyl ether acetate GAL WT: 7.94 WT PCT SOLIDS: 42.17 VOL PCT SOLIDS: 34.53 SOLVENT DENSITY: 7.02 VOC LE: 4.6 VOC AP: 4.6 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES
- 483-79<sup>™</sup> 1,2,4-trimethyl benzene(11%\*), 1,3,5-trimethyl benzene, Aliphatic polyisocyanate resin, Aromatic hydrocarbon-B, Benzene, propyl-, Ethyl 3-ethoxy propionate, Ethylene glycol monobutyl ether acetate(6%\*@), P-toluenesulfonyl isocyanate(0.1%) GAL WT: 8.34 WT PCT SOLIDS: 43.98 VOL PCT SOLIDS: 37.95 SOLVENT DENSITY: 7.49 VOC LE: 4.7 VOC AP: 4.7 FLASH POINT: 100 °F 141 °F H: 2 F: 2 R: 1 OSHA STORAGE: II TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES
- 483-83<sup>™</sup> Acrylic polymer-B, Butyl acetate, Methyl amyl ketone, Propylene glycol monomethyl ether acetate GAL WT: 7.81 WT PCT SOLIDS: 24.17 VOL PCT SOLIDS: 21.36 SOLVENT DENSITY: 7.64 VOC LE: 5.9 VOC AP: 5.9 FLASH POINT: 73 °F to below 100 °F H: 2 F: 3 R: 0 OSHA STORAGE: IC TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO
- 483-84<sup>TM</sup> 4-chlorobenzotrifluoride, Aliphatic polyisocyanate resin, Ethylbenzene(0.7%\*@), Methyl acetate, Methyl isobutyl ketone(5%\*@), Xylene(3%\*@) GAL WT: 8.91 WT PCT SOLIDS: 58.00 VOL PCT SOLIDS: 52.91 SOLVENT DENSITY: 7.94 VOC LE: 1.3 VOC AP: 0.9 FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES
- 483-85<sup>™</sup> 2-ethylhexyl acetate, 4-chlorobenzotrifluoride, Aliphatic polyisocyanate resin, Butyl acetate, Ethyl 3-ethoxy propionate, Isophorone diisocyanate(0.2% #\*), Isophorone diisocyanate homopolymer GAL WT: 9.48 WT PCT SOLIDS: 58.01 VOL PCT SOLIDS: 57.27 SOLVENT DENSITY: 9.16 VOC LE: 2.2 VOC AP: 1.8 FLASH POINT: 73 °F to below 100 °F H: 3 F: 3 R: 1 OSHA STORAGE: IC TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO
- 483-87<sup>™</sup> Aliphatic polyisocyanate resin, Butyl acetate, Ethyl acetate, Ethylbenzene(6.1%\*@), Methyl ethyl ketone, P-toluenesulfonyl isocyanate(0.1%), Toluene(7%\*@), Xylene(24%\*@) GAL WT: 8.01 WT PCT SOLIDS: 34.43 VOL PCT SOLIDS: 28.26 SOLVENT DENSITY: 7.31 VOC LE: 5.3 VOC AP: 5.3 FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: YES
- 483-90<sup>™</sup> 1,6-hexamethylene diisocyanate(0.4%\*@), 4-chlorobenzotrifluoride, Aliphatic polyisocyanate resin, Ethylbenzene(0.1%\*@) GAL WT: 10.63 WT PCT SOLIDS: 26.30 VOL PCT SOLIDS: 29.42 SOLVENT DENSITY: 11.10 VOC LE: 0.2 VOC AP: 0.1 FLASH POINT: 100 °F 141 °F H: 3 F: 2 R: 1 OSHA STORAGE: II TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

483-91<sup>™</sup> 1,6-hexamethylene diisocyanate(0.4%\*@), 4-chlorobenzotrifluoride, Aliphatic polyisocyanate resin GAL WT: 10.66 WT PCT SOLIDS: 26.19 VOL PCT SOLIDS: 29.38 SOLVENT DENSITY: 11.14 VOC LE: 0.0 VOC AP: 0.0 FLASH POINT: 100 °F - 141 °F H: 3 F: 2 R: 1 OSHA STORAGE: II TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

483-92<sup>™</sup> 2,2,4-trimethyl-1,3-pentanediol diisobutyrate, Hydrogen peroxide(3.0% #), Methyl ethyl ketone, Methyl ethyl ketone peroxide, Water GAL WT: 8.35 WT PCT SOLIDS: 95.00 VOL PCT SOLIDS: 53.14 SOLVENT DENSITY: 8.69 VOC LE: 0.1 VOC AP: 0.1 FLASH POINT: 141 °F - 200 °F H: 3 F: 2 R: 2 OSHA STORAGE: IIIA TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

**483-99™** Acrylic polymer-A, Bis(1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate, Ethyl 3-ethoxy propionate, Ethyl acetate, Ethylbenzene(0.3%\*@), Ethylene glycol monobutyl ether acetate(3%\*@), Methyl amyl ketone, Methyl isobutyl ketone(3%\*@),

Poly(oxy-1,2-ethanediyl), alpha.-[3-[3-(2h-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxy phenyl, Polyester resin, Polyol resin, Toluene(3%\*@), Ultraviolet absorber, Xylene(1%\*@) GAL WT: 8.41 WT PCT SOLIDS: 58.93 VOL PCT SOLIDS: 53.93 SOLVENT DENSITY: 7.51 VOC LE: 3.5 VOC AP: 3.5 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

489-22<sup>™</sup> 1,10-phenanthroline, 2-ethylhexanoic acid, Cobalt neodecanoate(8.5%\*@), Manganese neodecanoate(13%@), Medium mineral spirits, N-butyl alcohol(7%\*), Stoddard solvent, Toluene(4%\*@), Zirconium octoate GAL WT: 7.79 WT PCT SOLIDS: 41.19 VOL PCT SOLIDS: 30.06 SOLVENT DENSITY: 6.49 VOC LE: 4.6 VOC AP: 4.6 FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY REACTIVE: NO

495-01<sup>TM</sup> Butyl acetate, Methyl siloxane linear/cyclic, Octamethylcyclotetrasiloxane GAL WT: 7.36 WT PCT SOLIDS: 2.50 VOL PCT SOLIDS: 2.30 SOLVENT DENSITY: 7.34 VOC LE: 7.2 VOC AP: 7.2 FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB TSCA STATUS: In Compliance PHOTO-CHEMICALY 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.

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\* = 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
Prepared by: Y. B. Yarbrough