

MSDS 12
September 1, 2003

192 S ACTIVATOR

**DuPont Performance Coatings
Material Safety Data Sheet
Isocyanate Activators, Hardeners, and Additives**

SECTION 1 - Product and Company Identification		INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
Manufacturer:	E.I. du Pont de Nemours & Co. DuPont Performance Coatings Wilmington, DE, 19898	DIISOBUTYL KETONE	108-83-8	1.7	A 25.0 ppm O 50.0 ppm
Telephone:	Product Information: (800) 441-7515 Medical Emergency: (800) 441-3637 Transportation Emergency: (800) 424-9300 (CHEMTREC)	ETHYL ACETATE	141-78-6	76.0	A 400.0 ppm O 400.0 ppm
Product:	ISOCYANATE ACTIVATORS, HARDENERS AND ADDITIVES		ETHYL 3-ETHOXY PROPIONATE	763-69-9	1.5@25.0°C A None O None
DOT Shipping Name:	See DOT addendum.		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
Hazardous Materials Information:	See Section 10.				

SECTION 2 - Composition, Information on Ingredients

INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
ALIPHATIC POLYISOCYANATE RESIN	28182-81-2	None	S 1.0mg/m ³ 15 min STEL S 0.5mg/m ³ A None O None
ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE	112-07-2	0.3	A 20.0 ppm D 10.0 ppm Skin O None
AROMATIC HYDROCARBON-A	64742-94-5	10.0	D 100.0 ppm A None O None
HEPTANE	142-82-5	45.0@66.0°F	A 500.0 ppm 15 min STEL A 400.0 ppm O 500.0 ppm
AROMATIC HYDROCARBON-B	64742-95-6	10.0@25.0°C	D 50.0 ppm A None O None
HEXYL ACETATE ISOMERS	88230-35-7	1.4	A 50.0 ppm O None
BIS(1,2,2,6,6-PENTAMETHYL-4-PIPERIDINYL) SEBACATE	41556-26-7	None	A None O None
ISOBUTYL ALCOHOL	78-83-1	10.0@22.0°C	A 50.0 ppm O 100.0 ppm
BIS(2,2,6,6, TETRAMETHYL-4 PIPERIDYL) SEBACATE	52829-07-9	None	S 0.1mg/m ³ A None O None
ISOPHORONE DIISOCYANATE	4098-71-9	None	A 5.0 ppb Skin O None
BUTYL ACETATE	123-86-4	10.0	A 200.0 ppm 15 min STEL A 150.0 ppm O 150.0 ppm
ISOPHORONE DIISOCYANATE HOMOPOLYMER	53880-05-0	None	A None O None
DIBUTYL TIN DILAURATE	77-58-7	0.2@160.0°C	A None O None
ISOPROPYL ALCOHOL	67-63-0	33.0	A 500.0 ppm 15 min STEL A 400.0 ppm O 400.0 ppm D 400.0 ppm 8 & 12 hour TWA
DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	0.0	D 5.0 ppm A None O None
METHYL AMYL KETONE			

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INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS	INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
	110-43-0	2.8	A 50.0 ppm O 100.0 ppm	SALICYLIC ACID	69-72-7	None	O 15.0mg/m ³ Total Dust O 5.0mg/m ³ Respirable Dust A None
METHYL ETHYL KETONE	78-93-3	71.0@0.0	A 300.0 ppm 15 min STEL D 300.0 ppm 15 min TWA A 200.0 ppm O 200.0 ppm D 200.0 ppm 8 & 12 hour TWA	SILOXANES AND SILANE ESTERS	Not Avail	1.0	A None O None
METHYL ISOBUTYL KETONE	108-10-1	15.0	A 75.0 ppm 15 min STEL A 50.0 ppm O 100.0 ppm	SUBSTITUTED BENZOTRIAZOLE	25973-55-1	None	A None O None
N-BETA-(AMINO ETHYL)-GAMMA-AMINOPROPYLTRIMETHOXSILANE	1760-24-3	1.0	A None O None	TOLUENE	108-88-3	22.0	O 300.0 ppm CEIL O 500.0 ppm 10 min TWA O 200.0 ppm D 50.0 ppm 8 & 12 hour TWA A 50.0 ppm Skin
NAPHTHALENE	91-20-3	1.0@52.6°C	O 10.0 ppm D 0.1 ppm 8 & 12 hour TWA A 15.0 ppm CEIL Skin A 10.0 ppm Skin	TRIXYLENYL PHOSPHATE	25155-23-1	1.0	A None O None
OCTANE	111-65-9	None	A None O None	VM&P NAPHTHA	8032-32-4	17.9@68.0°F	D 100.0 ppm A 300.0 ppm O None
OXO-OCTYL ACETATE	108419-32-5	0.7@25.0°C	S 50.0 ppm Vapor S 10.0mg/m ³ Aerosol A None O None	XYLENE	1330-20-7	9.0@25.0°C	A 150.0 ppm 15 min STEL D 150.0 ppm 15 min STEL A 100.0 ppm O 100.0 ppm D 100.0 ppm 8 & 12 hour TWA
POLYESTER RESIN	Not Avail	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	3.7	D 10.0 ppm 8 & 12 hour TWA 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
				1,6-HEXAMETHYLENE DIISOCYANATE			

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INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
	822-06-0	0.0@25.0°C	A 5.0 ppb O None
2,4,6- TRI((DIMETHYLAMINO)METHYL) PHENOL	90-72-2	0.0@21.0°C	A None O None
4,6-DIMETHYL-2-HEPTANONE	19549-80-5	None	A None O None

*A=ACGIH, O=OSHA, D=DuPont, S=Suppliers. Limits are 8 hour TWA unless otherwise specified. Vapor pressure @25°C unless otherwise noted.

SECTION 3 - Hazards Information

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:

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-PIPERDINYL) SEBACATE

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

BIS(2,2,6,6, TETRAMETHYL-4 PIPERIDYL) SEBACATE

Contact may cause skin irritation with discomfort or rash. Causes severe eye irritation.

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.

DIBUTYL TIN DILAUATE

Contact may cause skin burns. Causes eye corrosion and permanent injury. Can be absorbed through the skin in harmful amounts.

DIETHYLENE GLYCOL MONOBUTYL ETHER

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 kidneys liver skin. Tests in laboratory animals have shown effects on any of the following organs/systems: blood kidneys liver. Recurrent overexposure may result in liver and kidney injury. High doses in laboratory animals have shown non specific effects such as irritation, weight loss, moderate blood changes. Eye contact may cause any of the following: severe irritation burns corneal injury

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.

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.

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

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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.

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.

HEXYL ACETATE ISOMERS

May cause any of the following central nervous system effects: dizziness headache

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.

PHORONE 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.

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 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

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.

OXO-OCTYL ACETATE

May cause any of the following central nervous system effects: dizziness headache

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.

SALICYLIC ACID

Individuals with preexisting diseases of the liver or kidneys may have increased susceptibility to the toxicity of excessive exposures. Skin permeation can occur in amounts capable of producing the effects of systemic toxicity.

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.

TRIXYLENYL PHOSPHATE

Has produced nervous system effects (such as weakness and tremors) in studies on laboratory animals.

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.

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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

ALIPHATIC DIISOCYANATE

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. Overexposure may cause damage to any of the following organs/systems: lungs skin. Can result in irritation and possible corrosive action in the mouth, stomach tissue and digestive tract. 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

2,4,6- TRI((DIMETHYLAMINO)METHYL) PHENOL

The following medical conditions may be aggravated by exposure: asthma respiratory disease eye disorders skin disorders. Skin contact may cause any of the following: severe irritation burns. Eye contact may cause any of the following: severe irritation burns blindness. Repeated or prolonged exposure may cause effects on any of the following organs/systems: nervous system respiratory system skin and eyes

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:

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 - Firefighting Measures

Flash Point (Closed Cup) See Section 11 for exact values.

Flammable limits LFL 0.0 % UFL 24.6 %

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 & 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

Steps to be taken in case material is released or spilled:

Ventilate area. Remove sources of ignition. Prevent skin and eye contact and breathing of vapor. 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 CO2 to vent. After 48 hours, material may be sealed and disposed of properly. 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.

SECTION 7 - Handling and Storage

Precautions to be taken in handling and storing:

Observe label precautions. If combustible (flashpoint between 100-200°F), keep away from heat, sparks and flame. If flammable (flashpoint less than 100°F), also keep away from static discharges and other sources of ignition. If material is extremely flammable (flashpoint less than 20°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°F. If product is water based, do not freeze.

Other precautions:

If material is a coating: do not sand, flame cut, braze or weld dry coating without a NIOSH approved respirator or appropriate ventilation, and gloves.

SECTION 8 - Exposure Controls or Personal Protection

Engineering controls and work practices:

Ventilation:

Provide sufficient ventilation in volume and pattern to keep contaminants below applicable exposure limits.

Respiratory:

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 clothing:

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

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Evaporation Rate	Slower than Ether
Solubility in water	NIL
Vapor Density	Heavier than air
Approx. boiling range (°C)	No Data Available
Approx. freezing range (°C)	-133 --107 ° (C)
Gallon weight (lbs/gal)	6.87 - 9.43
Specific gravity	0.82 - 1.13
Percent volatile by volume	6.40 - 91.33
Percent volatile by weight	4.99 - 88.89
Percent solids by volume	8.67 - 93.60
Percent solids by weight	11.11 - 95.01

SECTION 10 - Stability and Reactivity

Stability: Stable
Incompatibility (materials to avoid): water, alcohols, amines
Hazardous decomposition products:

CO, CO₂, 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°F) and combustibles (flashpoint between 100-200°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: Not Applicable

SECTION 11 - Additional Information**PRODUCT CODE INGREDIENTS (Product Specific)**

77S™ aromatic hydrocarbon-b, butyl acetate, dibutyl tin dilaurate, isophorone diisocyanate (1%*#), isophorone diisocyanate homopolymer, toluene (65%*#)
GAL WT: 7.75 WT PCT SOLIDS: 25.30 VOL PCT SOLIDS: 20.18
SOLVENT DENSITY: 7.25 VOC LE: 5.8 VOC AP: 5.8
FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

192S™ aliphatic polyisocyanate resin, aromatic hydrocarbon-b, butyl acetate, ethyl acetate, 1,2,4-trimethyl benzene (1-2%*)
GAL WT: 8.11 WT PCT SOLIDS: 32.69 VOL PCT SOLIDS: 27.14
SOLVENT DENSITY: 7.49 VOC LE: 5.5 VOC AP: 5.5
FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: NO

193S™ aliphatic polyisocyanate resin, butyl acetate, ethyl-acetate, ethylene glycol monobutyl ether acetate (4%*#), aliphatic diisocyanate (1%*#)
GAL WT: 9.02 WT PCT SOLIDS: 74.99 VOL PCT SOLIDS: 70.02
SOLVENT DENSITY: 7.50 VOC LE: 2.3 VOC AP: 2.3
FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: NO

194S™ aliphatic polyisocyanate resin, butyl acetate, ethyl-acetate, oxo-octyl acetate, aliphatic diisocyanate (1%*#)
GAL WT: 8.98 WT PCT SOLIDS: 75.00 VOL PCT SOLIDS: 69.75
SOLVENT DENSITY: 7.42 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
PHOTOCHEMICALLY REACTIVE: NO

195S™ aliphatic polyisocyanate resin, aromatic hydrocarbon-b, butyl acetate, ethyl acetate, 1,2,4-trimethyl benzene (0-2%*), aliphatic diisocyanate (1%*#)
GAL WT: 8.66 WT PCT SOLIDS: 60.74 VOL PCT SOLIDS: 54.52
SOLVENT DENSITY: 7.48 VOC LE: 3.4 VOC AP: 3.4
FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

236S™ isobutyl alcohol, isopropyl alcohol, methyl amyl ketone, n-beta-(amino ethyl)-gamma-aminopropyltrimethoxy-silane, octane, propylene glycol methyl ether, salicylic acid, siloxanes and silane esters, vm&p naphtha, 2,4,6-tri((dimethylamino)methyl) phenol
GAL WT: 7.13 WT PCT SOLIDS: 21.64 VOL PCT SOLIDS: 17.55
SOLVENT DENSITY: 6.78 VOC LE: 5.6 VOC AP: 5.6
FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 2 OSHA STORAGE: IB
PHOTOCHEMICALLY REACTIVE: NO

255S™ isobutyl alcohol, methyl isobutyl ketone (27%*#), n-beta-(amino ethyl)-gamma-aminopropyltrimethoxysilane, salicylic acid, siloxanes and silane esters, 2,4,6-tri((dimethylamino)methyl) phenol
GAL WT: 6.87 WT PCT SOLIDS: 11.11 VOL PCT SOLIDS: 8.67
SOLVENT DENSITY: 6.69 VOC LE: 6.1 VOC AP: 6.1
FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 2 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

582S™ aliphatic polyisocyanate resin, aromatic hydrocarbon-b, butyl acetate, ethyl acetate
GAL WT: 8.23 WT PCT SOLIDS: 38.11 VOL PCT SOLIDS: 32.11
SOLVENT DENSITY: 7.50 VOC LE: 5.1 VOC AP: 5.1
FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: NO

785S™ aliphatic polyisocyanate resin, methyl ethyl ketone (10%*#), aliphatic diisocyanate (1%*#)
GAL WT: 9.24 WT PCT SOLIDS: 90.00 VOL PCT SOLIDS: 86.13
SOLVENT DENSITY: 6.66 VOC LE: 0.9 VOC AP: 0.9
FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: NO

792S™ aliphatic polyisocyanate resin, aromatic hydrocarbon-b, bis(2,2,6,6, tetramethyl-4 piperidyl) sebacate, butyl acetate, ethyl acetate, substituted benzotriazole, 1,2,4-trimethyl benzene (1-2%*)
GAL WT: 8.11 WT PCT SOLIDS: 33.99 VOL PCT SOLIDS: 28.51
SOLVENT DENSITY: 7.48 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
PHOTOCHEMICALLY REACTIVE: YES

793S™ aliphatic polyisocyanate resin, aromatic hydrocarbon-b, bis(2,2,6,6, tetramethyl-4 piperidyl) sebacate, butyl acetate, diethylene glycol monobutyl ether (6%*#), ethyl acetate, substituted benzotriazole, toluene (4%*#), trixylenyl phosphate, 1,2,4-trimethyl benzene (0-2%*), aliphatic diisocyanate (1%*#)
GAL WT: 9.12 WT PCT SOLIDS: 78.77 VOL PCT SOLIDS: 74.20
SOLVENT DENSITY: 7.49 VOC LE: 1.9 VOC AP: 1.9
FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

795S™ aliphatic polyisocyanate resin, butyl acetate, ethyl-acetate, ethylene glycol monobutyl ether acetate (6%*#), aliphatic diisocyanate (1%*#)

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GAL WT: 8.82 WT PCT SOLIDS: 66.78 VOL PCT SOLIDS: 61.06
SOLVENT DENSITY: 7.50 VOC LE: 2.9 VOC AP: 2.9
FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: NO

3505S™ aliphatic polyisocyanate resin, aromatic hydrocarbon-a, aromatic hydrocarbon-b, butyl acetate, diisobutyl ketone, ethylbenzene (2.0%*), naphthalene (0.3-1.1%*), xylene (9-10%*), 1,2,4-trimethyl benzene (0-2%*), 4,6-dimethyl-2-heptanone

GAL WT: 8.12 WT PCT SOLIDS: 41.96 VOL PCT SOLIDS: 34.91
SOLVENT DENSITY: 7.23 VOC LE: 4.7 VOC AP: 4.7
FLASH POINT: 73 °F to below 100 °F H: 3 F: 3 R: 1 OSHA STORAGE: IC
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

3705S™ aliphatic polyisocyanate resin, butyl acetate, aliphatic diisocyanate (1%*)

GAL WT: 9.43 WT PCT SOLIDS: 95.01 VOL PCT SOLIDS: 93.60
SOLVENT DENSITY: 7.35 VOC LE: 0.5 VOC AP: 0.5
FLASH POINT: 73 °F to below 100 °F H: 2 F: 3 R: 1 OSHA STORAGE: IC
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: NO

4505S™ aliphatic polyisocyanate resin, butyl acetate, hexyl-acetate isomers, isophorone diisocyanate homopolymer, aliphatic diisocyanate (1%*)

GAL WT: 8.94 WT PCT SOLIDS: 73.54 VOL PCT SOLIDS: 67.58
SOLVENT DENSITY: 7.31 VOC LE: 2.4 VOC AP: 2.4
FLASH POINT: 100 °F - 141 °F H: 3 F: 2 R: 1 OSHA STORAGE: II
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: NO

4507S™ aliphatic polyisocyanate resin, butyl acetate, hexyl-acetate isomers, isophorone diisocyanate homopolymer, methyl amyl ketone, aliphatic diisocyanate (1%*)

GAL WT: 8.84 WT PCT SOLIDS: 73.36 VOL PCT SOLIDS: 66.64
SOLVENT DENSITY: 7.08 VOC LE: 2.4 VOC AP: 2.4
FLASH POINT: 100 °F - 141 °F H: 3 F: 2 R: 1 OSHA STORAGE: II
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: NO

VG1421™ aliphatic polyisocyanate resin, aromatic hydrocarbon-b, butyl acetate, 1,2,4-trimethyl benzene (1-4%*), aliphatic diisocyanate (1%*)

GAL WT: 8.97 WT PCT SOLIDS: 74.33 VOL PCT SOLIDS: 68.34
SOLVENT DENSITY: 7.28 VOC LE: 2.3 VOC AP: 2.3
FLASH POINT: 73 °F to below 100 °F H: 3 F: 3 R: 1 OSHA STORAGE: IC
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

2000S-B™ aliphatic polyisocyanate resin, aromatic hydrocarbon-b, bis (1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate, butyl acetate, substituted benzotriazole, toluene (7%*), trixylenyl phosphate, 1,2,4-trimethyl benzene (0-2%*), aliphatic diisocyanate (1%*)

GAL WT: 9.22 WT PCT SOLIDS: 84.70 VOL PCT SOLIDS: 80.67
SOLVENT DENSITY: 7.27 VOC LE: 1.4 VOC AP: 1.4
FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

7005S™ aliphatic polyisocyanate resin, aromatic hydrocarbon-b, butyl acetate, diisobutyl ketone, ethyl acetate, 1,2,4-trimethyl benzene (0-2%*), aliphatic diisocyanate (1%*)

GAL WT: 8.73 WT PCT SOLIDS: 65.29 VOL PCT SOLIDS: 58.38
SOLVENT DENSITY: 7.26 VOC LE: 3.0 VOC AP: 3.0

FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

7006S™ aliphatic polyisocyanate resin, hexyl acetate isomers, propylene glycol monomethyl ether acetate, aliphatic diisocyanate (1%*)

GAL WT: 9.00 WT PCT SOLIDS: 73.13 VOL PCT SOLIDS: 68.18
SOLVENT DENSITY: 7.61 VOC LE: 2.4 VOC AP: 2.4
FLASH POINT: 100 °F - 141 °F H: 2 F: 2 R: 1 OSHA STORAGE: II
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: NO

7975S™ aliphatic polyisocyanate resin, butyl acetate, ethyl-acetate, ethylbenzene (1.5%*), toluene (8%*), xylene (6-7%*), aliphatic diisocyanate (1%*)

GAL WT: 8.58 WT PCT SOLIDS: 57.73 VOL PCT SOLIDS: 50.71
SOLVENT DENSITY: 7.35 VOC LE: 3.6 VOC AP: 3.6
FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

7985S™ aliphatic polyisocyanate resin, butyl acetate, ethylbenzene (2.3%*), hexyl acetate isomers, methyl amyl ketone, xylene (10-11%*), aliphatic diisocyanate (1%*)

GAL WT: 8.42 WT PCT SOLIDS: 57.48 VOL PCT SOLIDS: 50.13
SOLVENT DENSITY: 7.18 VOC LE: 3.6 VOC AP: 3.6
FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

7995S™ aliphatic polyisocyanate resin, aromatic hydrocarbon-b, ethylene glycol monobutyl ether acetate (8%*), hexyl acetate isomers, methyl amyl ketone, 1,2,4-trimethyl benzene (1-6%*), aliphatic diisocyanate (1%*)

GAL WT: 8.44 WT PCT SOLIDS: 57.51 VOL PCT SOLIDS: 50.32
SOLVENT DENSITY: 7.19 VOC LE: 3.6 VOC AP: 3.6
FLASH POINT: 73 °F to below 100 °F H: 2 F: 3 R: 1 OSHA STORAGE: IC
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

8105S™ aliphatic polyisocyanate resin, aromatic hydrocarbon-a, aromatic hydrocarbon-b, butyl acetate, diisobutyl ketone, ethylbenzene (2.0%*), naphthalene (0.3-1.1%*), xylene (9-10%*), 1,2,4-trimethyl benzene (0-2%*), 4,6-dimethyl-2-heptanone

GAL WT: 8.12 WT PCT SOLIDS: 41.96 VOL PCT SOLIDS: 34.91
SOLVENT DENSITY: 7.23 VOC LE: 4.7 VOC AP: 4.7
FLASH POINT: 73 °F to below 100 °F H: 3 F: 3 R: 1 OSHA STORAGE: IC
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

8195S™ bis (1,2,2,6,6-pentamethyl-4-piperidinyl) sebacate, butyl acetate, diethylene glycol monobutyl ether (4%*), ethyl 3-ethoxy propionate, ethylbenzene (1.1%*), ethylene glycol monobutyl ether acetate (16%*), octane, polyester resin, substituted benzotriazole, vm&p naphtha, xylene (4-5%*)

GAL WT: 7.93 WT PCT SOLIDS: 35.49 VOL PCT SOLIDS: 31.05
SOLVENT DENSITY: 7.37 VOC LE: 5.1 VOC AP: 5.1
FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 0 OSHA STORAGE: IB
PHOTOCHEMICALLY REACTIVE: NO

8705S™ aliphatic polyisocyanate resin, butyl acetate, ethyl-acetate, ethylbenzene (6.0%*), toluene (4%*), xylene (25-30%*)

GAL WT: 8.10 WT PCT SOLIDS: 39.61 VOL PCT SOLIDS: 33.23
SOLVENT DENSITY: 7.33 VOC LE: 4.9 VOC AP: 4.9
FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance

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PHOTOCHEMICALLY REACTIVE: YES

12303S™ aliphatic polyisocyanate resin, butyl acetate, hexyl-acetate isomers, isophorone diisocyanate homopolymer, methyl amyl ketone, aliphatic diisocyanate (1%*@)

GAL WT: 8.54 WT PCT SOLIDS: 65.00 VOL PCT SOLIDS: 57.04
SOLVENT DENSITY: 6.98 VOC LE: 3.0 VOC AP: 3.0
FLASH POINT: 73 °F to below 100 °F H: 3 F: 3 R: 1 OSHA STORAGE: IC
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: NO

12305S™ aliphatic polyisocyanate resin, butyl acetate, hexyl-acetate isomers, methyl amyl ketone, aliphatic diisocyanate (1%*@)

GAL WT: 8.50 WT PCT SOLIDS: 65.00 VOL PCT SOLIDS: 57.28
SOLVENT DENSITY: 6.99 VOC LE: 3.0 VOC AP: 3.0
FLASH POINT: 20 °F to below 73 °F H: 2 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: NO

V-192S™ aliphatic polyisocyanate resin, heptane, methyl amyl-ketone, methyl ethyl ketone (15%*@), toluene (26%*@)

GAL WT: 7.69 WT PCT SOLIDS: 38.39 VOL PCT SOLIDS: 30.25
SOLVENT DENSITY: 6.80 VOC LE: 4.7 VOC AP: 4.7
FLASH POINT: 20 °F to below 73 °F H: 3 F: 3 R: 1 OSHA STORAGE: IB
TSCA STATUS: In compliance
PHOTOCHEMICALLY REACTIVE: YES

Footnotes:

TSCA: in compliance = In compliance with TSCA Inventory requirements for commercial purposes.

ACGIH = American Conference of Government Industrial Hygienists.

IARC = International agency for Research on Cancer.

NTP = National Toxicology Program.

SHA = 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. du Pont 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.

@ = Clean Air Act Hazardous Air Pollutant.

= EPCRA Section 302 - Extremely Hazardous Substance.

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: M. C. Gang