

Product Launch MSDS

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INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
METHYL AMYL KETONE	110-43-0	2.8	8 & 12 hour TWA Respirable Dust O None A 50.0 ppm O 100.0 ppm
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
METHYL ISOBUTYL KETONE	108-10-1	15.0	A 75.0 ppm 15 min STEL A 50.0 ppm O 100.0 ppm
N-PENTYL PROPIONATE	624-54-4	1.5	A None O None
POLYESTER RESIN	Not Avail	None	A None O None
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	3.7	D 10.0 ppm 8 & 12 hour TWA A None O None
TITANIUM DIOXIDE	13463-67-7	None	A 10.0 mg/m ³ D 10.0 mg/m ³ Total Dust O 15.0 mg/m ³ Total Dust D 5.0 mg/m ³ Respirable Dust
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
VM&P NAPHTHA	8032-32-4	17.9@68.0°F	D 100.0 ppm A 300.0 ppm O None

INGREDIENTS	CAS #	VAPOR PRESSURE	EXPOSURE LIMITS
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
1,2,4-TRIMETHYL BENZENE	95-63-6	7.0@44.4°C	A 25.0 ppm O 25.0 ppm
1,6-HEXAMETHYLENE DIISOCYANATE	822-06-0	0.0@25.0°C	A 5.0 ppb O None
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:

ACRYLIC POLYMER

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

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

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irritation, dryness, and cracking of the skin. Skin or eye contact may cause any of the following: irritation.

AROMATIC HYDROCARBON

The following medical conditions may be aggravated by exposure: skin disorders. Laboratory studies with rats have shown that petroleum distillates can cause kidney damage and kidney or liver tumors. These effects were not seen in similar studies with guinea pigs, dogs, or monkeys. Several studies evaluating petroleum workers have not shown a significant increase of kidney damage or an increase in kidney or liver tumors.

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.

CARBON BLACK

Is an IARC, NTP or OSHA carcinogen. Has shown carcinogenic activity in laboratory animals at high doses. Significance to man is unknown. The following medical conditions may be aggravated by exposure: asthma, respiratory disease. WARNING: This chemical is known to the State of California to cause cancer and birth defects or other reproductive harm.

DIISOBUTYL KETONE

The following medical conditions may be aggravated by exposure: asthma, blood, dermatitis. Contact may cause skin irritation with discomfort or rash. Repeated exposure may cause allergic skin rash, itching, swelling. This substance may cause damage to any of the following organs/systems: eyes, kidneys, liver. Extremely high oral and inhalation doses in laboratory animals have shown weight changes in various organs such as the liver, kidney, brain, heart and adrenal gland. In addition liver and kidney injury were observed at the extremely high inhalation level. In another inhalation study there was a slight depression in the white blood cell count. Liquid or vapor causes irritation, experienced as stinging, excess blinking and tear production, with excess redness and swelling of the conjunctiva.

ETHYL ACETATE

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

ETHYLBENZENE

Is an IARC, NTP or OSHA carcinogen. Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: central nervous system, kidneys, liver, lungs. Recurrent overexposure may result in liver and kidney injury. Studies in laboratory animals have shown reproductive, embryotoxic and developmental effects. WARNING: This chemical is known to the State of California to cause cancer.

ETHYLENE 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.

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.

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.

PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE

Recurrent overexposure may result in liver and kidney injury.

TITANIUM DIOXIDE

In a lifetime inhalation test, lung cancers were found in some rats exposed to 250 mg/m³ respirable titanium dust. Analysis of the titanium dioxide concentrations in the rat's lungs showed that the lung clearance mechanism was overwhelmed and that the results at the massive 250 mg/m³ level are not relevant to the workplace.

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.

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

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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.

1,6-HEXAMETHYLENE 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.

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 0.5 % UFL 12.3 %

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 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 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

Evaporation Rate	Slower than Ether
Solubility in water	NIL
Vapor Density	Heavier than air
Approx. boiling range (deg C)	77 - 140 °C
Approx. freezing range (deg C)	-92 - -49 °C
Gallon weight (lbs/gal)	6.85 - 13.37
Specific gravity	0.82 - 1.60
Percent volatile by volume	44.45 - 100.00
Percent volatile by weight	23.51 - 100.00
Percent solids by volume	0.00 - 55.55
Percent solids by weight	0.00 - 76.49

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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 deg F) and combustibles (flashpoint between 100-200 deg F) if heated above the flashpoint, solvent vapors in air may explode if static grounding and bonding is not used during transfer of this product.
Sensitivity to mechanical impact: Not Applicable

SECTION 11 - Additional Information

PRODUCT CODE INGREDIENTS (Product Specific)

1101S™ acrylic polymer, aluminum hydrate, butyl acetate, ceramic microspheres, ethylbenzene(1.2-3.0%*), heptane, hydrous magnesium silicate, methyl amyl ketone, polyester resin, titanium dioxide, vm&p naphtha, xylene(9-11%*)

GAL WT:13.37 WT PCT SOLIDS:76.49 VOL PCT SOLIDS:55.55
SOLVENT DENSITY: 7.09 VOC LE: 3.1 VOC AP: 3.1
FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC
TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES

1104S™ acrylic polymer, barium sulfate, butyl acetate, calcined kaolin, carbon black(0.2%), ethylbenzene(1.2-3.0%*), heptane, hydrous magnesium silicate, methyl amyl ketone, polyester resin, propylene glycol monomethyl ether acetate, titanium dioxide, vm&p naphtha, xylene(9-11%*)

GAL WT:13.01 WT PCT SOLIDS:75.79 VOL PCT SOLIDS:55.46
SOLVENT DENSITY: 7.09 VOC LE: 3.1 VOC AP: 3.1
FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC
TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES

1107S™ acrylic polymer, barium sulfate, butyl acetate, calcined kaolin, carbon black(1.2%), ethylbenzene(1.1-2.8%*), heptane, hydrous magnesium silicate, methyl amyl ketone, polyester resin, propylene glycol monomethyl ether acetate, titanium dioxide, vm&p naphtha, xylene(8-10%*)

GAL WT:12.94 WT PCT SOLIDS:75.72 VOL PCT SOLIDS:55.55
SOLVENT DENSITY: 7.09 VOC LE: 3.1 VOC AP: 3.1
FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC
TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES

12365S™ butyl acetate, ethylbenzene(2.0-5.0%*), methyl ethyl ketone(25%*), toluene(15-15%*), xylene(15-18%*)

GAL WT: 7.13 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00
SOLVENT DENSITY: 7.13 VOC LE: 7.1 VOC AP: 7.1
FLASH POINT: 20°F to below 73°F H: 2 F: 3 R: 0 OSHA STORAGE: IB
TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES

12375S™ butyl acetate, ethylbenzene(2.5-6.3%*), methyl amyl ketone, methyl isobutyl ketone(10%*), xylene(19-23%*)

GAL WT: 7.09 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00
SOLVENT DENSITY: 7.09 VOC LE: 7.1 VOC AP: 7.1
FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 1 OSHA STORAGE: IC
TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES

12385S™ diisobutyl ketone, ethylbenzene(1.5-3.8%*), methyl amyl ketone, n-pentyl propionate, xylene(11-14%*), 4,6-dimethyl-2-heptanone

GAL WT: 6.85 WT PCT SOLIDS: 0.00 VOL PCT SOLIDS: 0.00
SOLVENT DENSITY: 6.85 VOC LE: 6.9 VOC AP: 6.9
FLASH POINT: 73°F to below 100°F H: 2 F: 3 R: 0 OSHA STORAGE: IC
TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES

12395S™ aromatic hydrocarbon, diisobutyl ketone, ethyl 3-ethoxy propionate, 1,2,4-trimethyl benzene(1-5%*), 4,6dimethyl-2-heptanone

GAL WT: 7.42 WT PCT SOLIDS: 0.01 VOL PCT SOLIDS: 0.00
SOLVENT DENSITY: 7.42 VOC LE: 7.4 VOC AP: 7.4
FLASH POINT: 100°F - 141°F H: 2 F: 2 R: 1 OSHA STORAGE: II
TSCA STATUS: In compliance PHOTOCHEMICALLY REACTIVE: YES

7975S™ aliphatic polyisocyanate resin, butyl acetate, ethylacetate, ethylbenzene(0.8-2.1%*), toluene(8-8%*), xylene(6-7%*), 1,6-hexamethylene diisocyanate(0.1%*)

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, ethyl3-ethoxy propionate, ethylbenzene(1.3-3.2%*), methyl amyl ketone, xylene(10-12%*), 1,6-hexamethylene diisocyanate(0.1%*)

GAL WT: 8.43 WT PCT SOLIDS:57.48 VOL PCT SOLIDS:50.19
SOLVENT DENSITY: 7.20 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

7995S™ aliphatic polyisocyanate resin, aromatic hydrocarbon, ethylene glycol monobutyl ether acetate(9%*), methyl amyl ketone, n-pentyl propionate, 1,2,4-trimethyl benzene(1-5%*), 1,6-hexamethylene diisocyanate(0.1%*)

GAL WT: 8.44 WT PCT SOLIDS:57.51 VOL PCT SOLIDS:50.31
SOLVENT DENSITY: 7.18 VOC LE: 3.6 VOC AP: 3.6
FLASH POINT: 100°F - 141°F H: 2 F: 2 R: 1 OSHA STORAGE: II
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.

OSHA = Occupational Safety and Health Administration.

PNOR = Particles Not Otherwise Regulated.

PNOC = Particles Not Otherwise Classified.

STEL = Short Term Exposure Limit.

TWA = Time Weighted Average.

TM = Is a Trademark of E.I. DuPont de Nemours & Co.

* = Section 313 Supplier Notification: These chemicals are subject to the reporting requirements of Section 313 of the Emergency planning and Right-to-Know act of 1986 and of 40 CFR 372.

@ = 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. Gangi

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