

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: NP356PAVOC
PRODUCT CODES: 356PAVOC

MANUFACTURER: National Polymers Inc.
STREET ADDRESS: 9 Guttman Avenue
CITY, STATE, ZIP: Charleroi, Pa. 15022

INFORMATION PHONE: 724-483-9300
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: 724-483-9306

PREPARED BY: Harry Jackson

DATE REVISED: 6/1/15

Chemical Name or Class: isocyanate/solvent mixture

SECTION 2: HAZARDS IDENTIFICATION**Hazard Overview**

GHS Classification: Flammable liquid category 3, Specific target organ toxicity single exposure category 3, Specific target organ toxicity following repeated exposure category 2, Acute Dermal Toxicity category 4, Respiratory sensitization category 1B, Skin corrosion/irritation category 2, skin sensitizer category 1B, Serious eye irritation category 2B, Acute toxicity inhalation category 4, Acute hazard to aquatic environment category 3, Chronic hazards to aquatic environment category 3

GHS Label Elements and Precautionary Statements:

Label Elements: Flame, Health Hazard Exclamation Mark

**Hazard Statements:**

Warning: Flammable liquid and vapor
Warning: May cause respiratory irritation
Warning: May cause damage to organs (auditory) through prolonged or repeated exposure
Warning: May be harmful in contact with skin.
Danger: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Warning: Causes skin irritation
Warning: May cause an allergic skin reaction
Warning: Causes serious eye irritation
Warning: Harmful if inhaled
Harmful to aquatic life
Harmful to aquatic life with long lasting effects
Precautionary statements:
P102 Keep out of reach of children.
P103 Read label before use
P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P271 Use only outdoors or in a well-ventilated area.
P260 Do not breathe dust/fume/gas/mist/vapours/spray
P284 Wear respiratory protection
P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves and clothing to prevent skin contact.
P273 Avoid release to the environment.
Response
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
P370 + P378 In case of fire: Use Foam, alcohol foam, CO2, dry chemical for extinction.
P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P312 If inhaled. Call a POISON CENTER or doctor/physician if you feel unwell.
P314 Get medical advice/attention if you feel unwell

SAFETY DATA SHEET

PRODUCT CODE: 356PAVOC

P302 + P352 IF ON SKIN: wash with plenty of soap and water
P312 Call a POISON CENTER or doctor/physician if you feel unwell
P361+P364 Take off immediately all contaminated clothing and wash it before reuse
P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P342 + P311 IF experiencing respiratory symptoms: call a POISON CENTER or doctor/physician.
P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.
P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 IF eye irritation persists: Get medical advice/attention.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P233 Keep container tightly closed.
Disposal:
P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws

HMIS HAZARD CLASSIFICATION

HEALTH: 3 FLAMMIBILITY: 3 REACTIVITY: 1 PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS

EYES:

CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, OR BLURRED VISION AS WELL AS CORNEAL OPACITY AND CONJUNCTIVITIS

SKIN:

MAY CAUSE IRRITATION, DEFATTING AND DERMATITIS.

INGESTION:

CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITTING, DIARRHEA AND ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL. CAN CAUSE CORROSIVE ACTION TO MUCOUS MEMBRANES AND DIGESTIVE TRACT.

INHALATION:

CAN CAUSE NAUSEA AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, HEADACHE AND POSSIBLE UNCONSCIOUSNESS. BURNING SENSATION TO MUCOUS MEMBRANES, SHORTNESS OF BREATH AND FLU LIKE SYMPTOMS MAY OCCUR.

HEALTH HAZARDS (ACUTE AND CHRONIC):

OVER EXPOSURE TO THIS MATERIAL CAN CAUSE CARDIAC ABNORMALITIES, ANEMIA, LIVER ABNORMALITIES, KIDNEY DAMAGE OR EVEN EYE DAMAGE. CAN CAUSE ASTHMA OR OTHER RESPIRATORY DISORDERS, BRONCHITIS, EMPHYSEMA, HYPERACTIVITY, AND ECZEMA.

Can cause sensitization by exposure through contact or high concentrations of vapor. Over-exposure to this material can cause cardiac abnormalities. Overexposure can possibly cause anemia. Liver abnormalities, kidney damage or eye damage. May cause asthma or other respiratory disorders, bronchitis, emphysema, hyperactivity and eczema.

Chronic Inhalation: as a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma), which will cause them to react to a later exposure to isocyanate at levels well below the TLV or MGL. These symptoms, which include chest tightness, wheezing, cough, shortness of breath or asthma attack, could be immediate or delayed up to several hours after exposure. Similar to many nonspecific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in several years. Chronic overexposure to isocyanates has been reported to cause lung damage, including decrease in lung function, which may be permanent. Sensitization may either be temporary or permanent.

Acute skin Contact: Isocyanates react with the skin protein and moisture and can cause irritation. Symptoms of skin irritation may be reddening, swelling, rash, scaling, or blistering. Some persons may develop skin sensitization from skin contact. Cured material is difficult to remove.

Chronic Skin contact: Prolonged contact with the isocyanate can cause reddening, swelling, rash, scaling, or blistering. In those who have developed a skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material or even as a result of vapor-only exposure.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC RESPONSE.

CARCINOGENICITY

OSHA: NO NTP: NO IARC: yes

ADDITIONAL CARCINOGENICITY INFORMATION:

Product may contain ethyl benzene as a component of xylene (IARC 2B)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
Hopolymer of HDI	28182-81-2	1 mg/m3	NONE	NONE	40-70
*Xylene	1330-20-7	100 PPM	100 PPM	150 PPM	11
*Ethyl benzene (as a component of xylene)	100-41-4	100ppm	100ppm	125ppm	<2%
n-Butyl Acetate	123-86-4	150 PPM	150 PPM	200 PPM	7-13
*Hexamethylene Diisocyanate (HDI)	822-06-0	NONE	.005 PPM	NONE	<1%

SAFETY DATA SHEET

PRODUCT CODE: 356PAVOC

Siloxanes and silicones, di-me reactions products with silica (non-hazardous)	67762-90-7	none	none	none	0.1-1
siloxanes and silicones, di-methyl (non-hazardous)	63148-62-9	none	none	none	0.1-1
DIBUTYLIN DILUARATE	77-58-7	.1MG/M3	.1MG/M3	.1MG/M3	0.1-1
METHYL N AMYL KETONE	110-43-0	100PPM	50PPM	NONE	7-13

SECTION 3 NOTES:

*** Indicates toxic chemical(s) subject to reporting requirements of section 313 of Title III and of 40 CFR 372.

XYLENE ACGIH STEL=150PPM.

Note: Ingredients listed without percentages, the percentages are considered a trade secret.

SECTION 4: FIRST AID MEASURES

EYES:

FLUSH EYES WITH WATER FOR AT LEAST FIFTEEN MINUTES AND CONSULT A PHYSICIAN.

SKIN:

FOR EXTREME EXPOSURE USE A SAFETY SHOWER IMMEDIATELY. WASH AFFECTED AREA WITH SOAP AND WATER AND REMOVE ALL CONTAMINATED CLOTHING PROMPTLY.

INGESTION:

DO NOT INDUCE VOMITING, KEEP PERSON WARM AND CONSULT A PHYSICIAN IMMEDIATELY. GIVE 1-2 CUPS OF MILK OR WATER TO DRINK.

INHALATION:

REMOVE VICTIM TO FRESH AIR AND ADMINISTER OXYGEN IF NECESSARY. OBTAIN MEDICAL ASSISTANCE. ASTHMATIC TYPE SYMPTOMS MAY OCCUR IMMEDIATELY OR BE DELAYED FOR SEVERAL HOURS. TREATMENT IS SYMPTOMATIC.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 5: FIRE FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR,
(% by volume)

UPPER: not available
LOWER: not available

FLASH POINT: 77F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO₂, DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES:

DO NOT ENTER CONFINED FIRE AREA WITHOUT FULL BUNKER GEAR INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. PRESENCE OF SOLVENTS IN PRODUCTS MAY REQUIRE GROUNDING. REMOVE ALL SOURCES OF IGNITION.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

IF FIRE OCCURS, SOLVENTS MAY PRODUCE EXCESSIVE PRESSURE. SEALED DRUMS MAY RUPTURE AND IGNITE. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND AND IGNITE BY ANY SOURCE OF IGNITION. DURING A FIRE, HDI VAPORS AND OTHER TOXIC GASSES MAY BE EVOLVED. CONTAINERS MAY BURST IF CONTAMINATED WITH WATER. VAPOR FLASHBACK TO SOURCE IS POSSIBLE.

SECTION 6: RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

WEAR RESPIRATOR AND PROTECTIVE CLOTHING. REMOVE ALL SOURCES OF IGNITIONS. REMOVE EXCESS WITH SPARK PROOF EQUIPMENT AND TAKE UP THE REMAINDER WITH AN ABSORBENT MATERIAL SUCH AS CLAY AND PLACE IN DISPOSAL CONTAINERS. CONTAINED AIR RESPIRATOR MAY BE NECESSARY.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

STORE IN A COOL DRY PLACE. SEAL ALL PARTIALLY USED CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFORE, READ THE MSDS'S OF ALL THE COMPONENTS PRIOR TO USING MATERIAL. PROPERLY LABEL ALL CONTAINERS. KEEP MATERIAL AWAY FROM ALL SOURCES OF IGNITION.

OTHER PRECAUTIONS:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS GENERATED FROM THE MATERIAL. OBSERVE CONDITIONS OF GOOD GENERAL HYGIENE AND SAFE WORKING PRACTICES. CONTAMINATED LEATHER ARTICLES CAN NOT BE CLEANED AND MUST BE DISCARDED IF CONTAMINATED WITH THIS PRODUCT. WASH ALL CONTAMINATED CLOTHING PRIOR TO THE REUSE THEREOF. WEAR APPROPRIATE SAFETY EQUIPMENT AND RESPIRATOR AT ALL TIMES WHEN VENTILLATION IS NOT SUFFICIENT TO CONTROL VAPORS. OBSERVE OSHA REGULATIONS FOR RESPIRATOR USE (29 CFR 1910.134). WHEN SPRAYING MATERIAL AVOID EXPOSURE TO ALL MISTS GENERATED BY USING AIR SUPPLIED RESPIRATOR.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

USE A NIOSH APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER EXPOSURE TO VAPOR IN ACCORDANCE WITH 29 CFR 1910.134. ENGINEERING OR ADMINISTRATIVE MEASURES SHOULD BE TAKEN TO REDUCE THE RISK AND EXPOSURE. USE A POSITIVE PRESSURE SUPPLIED AIR RESPIRATOR WHEN EXCEEDING TLV'S OR IF TDI MONOMER CONCENTRATIONS EXCEED ACCEPTABLE LIMITS OF WHEN SPRAYING MATERIAL.

VENTILATION:

EXHAUST VENTILATION SUFFICIENT TO KEEP AIRBORN CONCENTRATIONS OF TDI BELOW THEIR TLV AND MGL MAXIMUM. REFER TO PATTY'S INDUSTRIAL HYGIENE AND TOXICOLOGY – VOLUME 1 (3RD EDITION) CHAPTER 17 AND VOLUME III (1ST EDITION) CHAPTER 3 FOR DETAILS

PROTECTIVE GLOVES:

IMPERVIOUS GLOVES – NEOPRENE OR RUBBER

EYE PROTECTION:

SPLASH GOGGLES OR GLASSES WITH SIDE SHIELDS. DO NOT WEAR CONTACT LENSES WHEN USING THIS PRODUCT.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

WEAR BODY COVERING CLOTHING AND OTHER COVERINGS AS NECESSARY SUCH AS APRON AND APPROPRIATE FOOTWEAR TO AVOID CONTACT WITH MATERIAL.

WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGENIC PRACTICES.

SEE SECTION THREE FOR OCCPATONAL EXPOSURE LIMIT VALUES.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: PALE YELLOW LIQUID WITH SOLVENT ODOR

BOILING POINT OR RANGE: 279 TO 300F

VAPOR DENSITY (AIR = 1): Not available

SPECIFIC GRAVITY (H₂O = 1): 1.0

EVAPORATION RATE: not available

SOLUBILITY IN WATER: NEGLIGIBLE

Odor Threshold: N/A

pH: N/A

Melting point/freezing point: N/A

Vapor Pressure: N/A

Auto Ignition Temperature: N/A

Partition Coefficient: n-octanol/water: N/A

Decomposition Temperature: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY:

STABLE

CONDITIONS TO AVOID (STABILITY):

AVOID EXCESSIVE HEAT OR OPEN FLAMES AS WELL AS ALL SOURCES OF IGNITION SUCH AS SPARKS, HEATERS, AND STATIC DISCHARGES ETC.

INCOMPATIBILITY (MATERIAL TO AVOID):

AVOID WATER, AMINES, STRONG BASES, ALCOHOLS, METAL COMPOUNDS, AND SURFACE ACTIVE COMPOUNDS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

MAY FORM TOXIC CHEMICALS, CARBON DIOXIDE, CARBON MONOXIDE, OXIDES OF NITROGEN, HCN AND HDI

HAZARDOUS POLYMERIZATION:

MOISTURE OF MATERIALS THAT REACT WITH ISOCYANATES AND TEMPERATURES ABOVE 400 DEGREES F MAY CAUSE POLYMERIZATION.

SECTION 11: TOXICOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component Homopolymer of HDI CAS# 28182-81-2, Xylene CAS# 1330-20-7, *Ethyl benzene CAS# 100-41-4, n-Butyl Acetate CAS# 123-86-4, and Hexamethylene Diisocyanate (HDI) CAS# 822-06-0 (combined): Acute Oral Toxicity LD50 >5000 mg/kg (rat) (estimated value)

Acute Inhalation Toxicity LC50 390-453 mg/m³, 4h (rat)

Acute Dermal Toxicity LD50 >5000 mg/kg (rabbit)

Skin Irritation, rabbit, Draize, slightly irritating

Eye Irritation, rabbit, Draize, slightly irritating

Sensitization: Dermal – Sensitizer (Guinea Pig, Maximization Test). Dermal – Non-Sensitizer (Guinea Pig, Buehler).

Sensitization Inhalation – Non-sensitizer (Guinea Pig)

SAFETY DATA SHEET

PRODUCT CODE: 356PAVOC

Repeated Dose Toxicity: 3 wks, inhalation NOAEL: 3.7-4.3 mg/m³ (rat)

Repeated Dose Toxicity: 90 d, inhalation NOAEL: 3.3-3.4 mg/m³ (rat)

Repeated Dose toxicity: Irritation to lungs and nasal cavity

Mutagenicity: Genetic Toxicity in Vitro, Ames: negative (salmonella typhimurium, metabolic Activation: with/without)

COMPONENT n-Butyl Acetate: Acute oral LD50 > 5000 mg/kg (rat), Acute Inhalation Toxicity: LC50 > 23.4 mg/l, 4h (rat), Acute Dermal Toxicity LD50 > 5000 mg/kg (rabbit), Skin Irritation Guinea pig Acute Dermal Irritation exposure time 24h – Non-irritating, Skin Irritation Human patch test exposure time 48h – Non-irritating, Eye Irritation rabbit Draize exposure time 24h – slightly irritating, Sensitization dermal – non-sensitizing (guinea pig, human – maximization test). Repeated Dose Toxicity – 13 weeks inhalation NOAEL: 500 ppm (rat). Mutagenicity Genetic Toxicity in Vitro: Ames negative (Salmonella typhimurium, Metabolic Activation: with/without).

COMPONENT Xylene: Inhalation LC50 26800ppm, Skin LD50 2000 mg/kg, Ingestion LD50 4.3 g/kg. Exposure may effect skin, eye, liver, kidney, nervous system, respiratory system and lungs. High concentrations may lead to nervous system effects. Repeated overexposure has produced toxic effects in developing and young laboratory animals. Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal. Xylene may contain ethyl benzene.. Ethyl benzene has shown limited evidence of a carcinogenic effect.

COMPONENT Ethyl Benzene: Acute Oral toxicity LD50: ca. 3500 mg/kg (rat); Acute inhalation LC50: 17.2 mg/l 4h (rat); Acute Dermal Toxicity: 17,800 mg/kg (rabbit); Skin Irritation rabbit Draize exposure time 24h – slightly irritating. Eye Irritation rabbit Draize – severely irritating. Sensitization dermal (human patch test) non-sensitizer.Repeated Dose toxicity 28 days inhalation NOAEL: 3.4 mg/l (rabbit). Mutagenicity Genetic Toxicity in Vitro: Ames: Negative (salmonella typhimurium, metabolic activation with/without). Carcinogenicity: Ethyl benzene was tested by inhalation exposure in mice and rats. In mice, there was an increased incidence of lung adenomas in males and liver adenomas in females. In male rats, there was an increased incidence of renal tubule adenomas and carcinomas. Two Studies of workers potentially exposed to ethyl benzene in a production plant and a styrene polymerization plant, showed no excess cancer incidence and no excess cancer mortality during a 15 year follow-up. Toxicity to Reproduction/Fertility: Inhalation (monkey, male) Reproductive effects have been observed in animal studies, In a generation study, inhalation (rat/female) NOAEL (parental): 100ppm NOAEL (F2): 100ppm. Developmental Toxicity/Teratogenicity rat, female, inhalation, gestation, daily, NOAEL (teratogenicity): 100ppm (maternal): 100ppm. Teratogenic effects seen only with maternal toxicity., Fetotoxicity seen only with maternal toxicity. Rabbit, female, inhalation, gestation, daily, NOAEL (teratogenicity) < 1000 mg/m³, NOAEL (maternal) < 1000 mg/m³.

Component CAS# 110-43-0: Oral LD 50 (rat): 1600 mg/kg; Oral LD50 (mouse) 730 mg/kg; Inhalation LC50 (rat) 2000-4000 ppm, 4 hr. Dermal LD50 (rabbit) 10206 mg/kg; Dermal LD50 (guinea pig) >16200 mg/kg; Skin irritation (Rabbit) – slight to moderate; Eye irritation (rabbit) slight; Skin sensitization (human) none

SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

COMPONENT Homopolymer of HDI: Biodegradation: 0%, Exposure time: 28 days, not readily biodegradable. Acute and Prolonged Toxicity to fish LC0 > 100 mg/l (zebra fish, 96 h). Acute toxicity to aquatic invertebrates: EC0 > 100 mg/l (water flea, 48 h). Toxicity to aquatic plants EC50 > 1000 mg/l (green algae, 72 h). Toxicity to Microorganisms: EC50 > 1000 mg/l (activated sludge microorganisms, 3 h).

COMPONENT n-Butyl Acetate: Biodegradation: aerobic, 98%, exposure time 28 days. Biochemical oxygen demand (BOD) 1020 mg/g. Chemical Oxygen demand (COD) 2,320 mg/g. Bioaccumulation: ca. 4-14 BCF. Acute and Prolonged Toxicity to Fish LC50: 18 mg/l (fathead Minnow, 96 h). Acute Toxicity to Aquatic Invertebrate EC50: 72.8 mg/l (water flea, 48 h). Toxicity to aquatic plants EC50: 670 mg/l, end point: growth (Cryptomonad, 48 h). Toxicity to Microorganisms EC50: 959 mg/l (Pseudomonas putida, 48 h).

COMPONENT Xylene: Acute Toxicity: Fish: Toxic 1 < LC/EC/IC50 < 10mg/l, Aquatic Invertebrates: Toxic 1 < LC/EC/IC50 < 10mg/l, Algae: Toxic 1 < LC/EC/IC50 < 10 mg/l. Mobility – floats on water. If it enters the soil it will be highly mobile and may contaminate groundwater. Oxidises rapidly by photo-chemical reactions in air.

COMPONENT Ethyl Benzene: Biodegradation, Aerobic, 50%, Exposure time 28 days. Biochemical Oxygen demand (BOD) 5 days, 2.8% and 35 days, 1780 mg/g. Bioaccumulation: Cyprinus carpio (Carp), 15 BCF. Acute and Prolonged Toxicity to Fish LC50: 12.1 mg/l (fathead minnow, 96 h). Acute Toxicity to Aquatic Invertebrates EC50: 1.8-2.9 mg/l (water flea, 48 h). Toxicity to Aquatic Plants EC50: 4.6 mg/l (green algae, 72 h). Toxicity to microorganisms EC50: 130 mg/l (activated sludge microorganisms, 48 hr).

Component Dibutyltin Dilurate CAS# 77-58-7: ACUTE ORAL TOX (LD50,RAT) 3200.00 MG/KG. ACUTE DERMAL TOX (LD50,RABBIT) >2000 MG/KG (NO DEATHS). ACUTE INHAL TOX (LC50, RAT) >8.10 MG/L/1 HR. AMES TEST: NEG (ACTIVATED & NONACTIVATED) INDUST CHEMS SUC H AS THIS MATL W/ACUTE TOX VALUES SHOWN & WHOSE VAPS/MISTS ARE NOT LIKELY TO BE ENCOUNTERED BY HUMANS WHEN USED IN ANY REASONABLY

FORESEEABLE MANNER WOULD NOT REQ TOXIC LABEL ACCORD TO U.S. DOMESTIC & INTERNATIONAL TRANSPORT REQS. IRRITANTS DATA: SEV IRRITANT TO EYES OF RABBIT. MOD IRRITANT TO SKIN OF RABBIT.

Component CAS# 110-43-0: BOD-5: 1770 mg/kg; BOD-20: 2000 mg/kg; COD: 2420 mg/kg. Acute Aquatic Effects: 96 hr LC50 (fathead minnow) 131 mg/l and 48 hr EC50 (daphnia) >90 mg/l (highest concentration tested)

SECTION 13: WASTE DISPOSAL

WASTE DISPOSAL METHOD:

DISPOSE OF THE MATERIAL IN A WASTE DISPOSAL SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAW.

SECTION 14: Transport Information

DOT: UN1993, FLAMMABLE LIQUID N.O.S. (CONTAINS XYLENE, BUTYL ACETATE), 3, PG III

IMO/IMDG: UN1993, FLAMMABLE LIQUID N.O.S. (CONTAINS XYLENE, BUTYL ACETATE), 3, PG III

SECTION 15: REGULATORY INFORMATION

SAFETY DATA SHEET

PRODUCT CODE: 356PAVOC

No data for the product itself.

Component data:

Components Hopolymer of HDI CAS# 28182-81-2, Xylene CAS# 1330-20-7, *Ethyl benzene CAS# 100-41-4, n-Butyl Acetate CAS# 123-86-4, and Hexamethylene Diisocyanate (HDI) CAS# 822-06-0 (combined): : OSHA HAZCOM STANDARD RATING: Hazardous. All components on TSCA Massachusetts, New York, Pennsylvania Right to Know list includes the following components: Homopolymer of HDI CAS# 28182-81-2 @ 60-100%; n-Butyl Acetate CAS# 123-86-4 @ 10-20%; Xylene CAS# 1330-20-7 @ 7-13%; Ethyl Benzene CAS# 100-41-4 @ 1-5%. Massachusetts, New York, Pennsylvania Special hazardous Substance includes the following components: n-Butyl Acetate CAS# 123-86-4 @ 10-20%; Xylene CAS# 1330-20-7 @ 7-13%; Ethyl Benzene CAS# 100-41-4 @ 1-5%; hexamethylene diisocyanate (HDI) CAS# 822-06-0 @ <0.6%. California Prop 65: This product contains chemicals known to the State of California to be carcinogenic: Ethyl Benzene CAS# 100-41-4 @ 1-5% US EPA CERCLA Hazardous Substances (40 CFR 302): n-butyl acetate reportable quantity 5000 lbs US EPA CERCLA Hazardous Substances (40 CFR 302): Xylene reportable quantity 100 lbs US EPA CERCLA Hazardous Substances (40 CFR 302): Ethyl Benzene reportable quantity 1000 lbs. US EPA Emergency Planning and Community Right to Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.5) components, Xylene and Ethyl Benzene.

Component Siloxanes and silicones, di-me reactions products with silica: Included on TSCA, EINECS, MITI, ACOIN, and Canadian DSL inventory or lists.

Component siloxanes and silicones, di-methyl: Included on TSCA, EINECS, MITI, ACOIN, and Canadian DSL inventory or lists.

Component Dibutyltin Dilurate CAS# 77-58-7: State Title III Information: TOXIC SUBSTANCES CONTROL ACT (TSCA): ALL COMPONENTS ARE INCL IN EPA TOXIC SUBSTANCES CTL ACT (TSCA) CHEM SUBSTANCE INVENTORY. OSHA HAZARD COMMUNICATION STD (29CFR1910.1200) HAZARD CLASS(ES): IRRITANT.KIDNEY TOXIN. EPA SARA TITLE III SECTION 312 (40CFR370) HAZARD CLASS. IMMEDIATE HEALTH HAZARD. EPA SARA TITLE III 313 (40CFR372) TOXIC CHEMICALS "DE MINIMIS" LEVEL ARE NONE. Federal Regulatory Information: CANADA DSL-INCL ON INVENTORY. HAZARD CLASSIFICATION-CLASS D DIVISION 2B.(EEC). EINECS /ELINCS MASTER INVENTORY-INCLUDED ON INVENTORY. EEC SYMBOL-HARMFUL (XN). EEC RISK (R) PHRASES-IRRITATING TO EYES & SKIN (R36/38). HARMFUL BY INHAL (R20). EEC SFTY PHRASES-IN CASE OF CONT W/EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER & SEEK MEDICAL ADVICE (S26). AUSTRALIA-AICS-INCLUDED ON INVENTORY. State Regulatory Information: STATE REGS: PROPOSITION 65 SUBSTANCES (COMPONENT(S) KNOWN TO STATE OF CALIFORNIA TO CAUSE CANCER AND/OR REPRODUCTIVE TOXICITY & SUBJECT TO WARNING & DISCHARGE REQUIREMENTS UNDER "SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986"):NONE.

Component CAS# 110-43-0: On DSL and TSCA, EINECS, AICS, MITI and ECL lists.

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information contained herein is based on the data available and is believed to be accurate. However, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.

N/A = Not Available

See Section 1 for date of preparation