International. MATERIAL SAFETY DATA SHEET

prepared 07/29/10

HAZARDS IDENTIFICATION (ANSI Section 3)

Primary route(s) of exposure : Inhalation, skin contact, eye contact, ingestion.

Effects of overexposure :

Inhalation : Irritation of respiratory tract. Prolonged inhalation may lead to. Inhalation of spray mist may cause irritation of respiratory tract. Mucous membrane irritation, fatigue, drowsiness, dizziness and/or lightheadedness, headache, uncoordination, nausea, vomiting, diarrhea, blurred vision, coughing, difficulty with speech, central nervous system depression, intoxication, tightness of chest, anesthetic effect or narcosis, difficulty of breathing, allergic response, tremors, liver damage, kidney damage, pulmonary edema, pneumoconiosis, loss of consciousness, respiratory failure, asphyxiation, death. Possible sensitization to respiratory tract.

Skin contact : Irritation of skin. Prolonged or repeated contact can cause dermatitis, defatting, blistering, severe skin irritation. Possible sensitization to skin. Skin contact may result in dermal absorption of component(s) of this product which may cause dizziness and/or lightheadedness, headache, nausea, vomiting, central nervous system depression.

Eye contact : Irritation of eyes. Prolonged or repeated contact can cause conjunctivitis, blurred vision, tearing of eyes, redness of eyes, severe eye irritation, corneal injury.

Ingestion : Ingestion may cause lung inflammation and damage due to aspiration of material into lungs, mouth and throat irritation, drowsiness, dizziness and/or lightheadedness, headache, uncoordination, nausea, vomiting, diarrhea, gastro-intestinal disturbances, abdominal pain, central nervous system depression, intoxication, anesthetic effect or narcosis, difficulty of breathing, liver damage, kidney damage, pulmonary edema, convulsions, loss of consciousness.

Medical conditions aggravated by exposure : Eye, skin, respiratory disorders, kidney disorders, liver disorders.

FIRST-AID MEASURES (ANSI Section 4)

Inhalation : Remove to fresh air. Restore and support continued breathing. Get emergency medical attention. Have trained person give oxygen if necessary. Get medical help for any breathing difficulty. Remove to fresh air if inhalation causes eye watering, headaches, dizziness, or other discomfort. Get medical attention if discomfort or irritation persists.

Skin contact : Wash thoroughly with soap and water. If any product remains, gently rub petroleum jelly, vegetable or mineral/baby oil onto skin. Repeated applications may be needed. Remove contaminated clothing. Wash contaminated clothing before re-use. If irritation occurs, consult a physician.

Eye contact : Flush immediately with large amounts of water, especially under lids for at least 15 minutes. If irritation or other effects persist, obtain medical treatment.

Ingestion : If swallowed, obtain medical treatment immediately.

FIRE-FIGHTING MEASURES (ANSI Section 5)

Fire extinguishing media : Dry chemical or foam water fog. Carbon dioxide. Closed containers may explode when exposed to extreme heat or fire. Vapors may ignite explosively at ambient temperatures. Vapors are heavier than air and may travel long distances to a source of ignition and flash back. Vapors can form explosive mixtures in air at elevated temperatures. Closed containers may burst if exposed to extreme heat or fire. Dust explosion hazard. Solvent must not be allowed to evaporate because contact of water with aluminum dust generates hydrogen, which is a flammable gas. May decompose under fire conditions emitting irritant and/or toxic gases.

Fire fighting procedures : Water may be used to cool and protect exposed containers. Firefighters should use full protective clothing, eye protection, and self-contained breathing apparatus.

Hazardous decomposition or combustion products : Carbon monoxide, carbon dioxide, oxides of nitrogen, oxides of sulfur, ammonia, aluminum oxide, toxic gases, barium compounds, unidentified organic compounds. Smoke.

ACCIDENTAL RELEASE MEASURES (ANSI Section 6)

Steps to be taken in case material is released or spilled : Comply with all applicable health and environmental regulations. Eliminate all sources of ignition. Ventilate area. Ventilate area with explosion-proof equipment. Spills may be collected with absorbent materials. Use non-sparking tools. Evacuate all unnecessary personnel. Place collected material in proper container. Complete personal protective equipment must be used during cleanup. Large spills - shut off leak if safe to do so. Dike and contain spill. Pump to storage or salvage vessels. Use absorbent to pick up excess residue. Keep salvageable material and rinse water out of sewers and water courses. Small spills - use absorbent to pick up residue and dispose of properly.

HANDLING AND STORAGE (ANSI Section 7)

Handling and storage : Store below 80f. Store below 100f (38c). Keep away from heat, sparks and open flame. Keep from freezing. Store in original container. Keep away from direct sunlight, heat and all sources of ignition. Keep container tightly closed in a well-ventilated area.

Other precautions : Use only with adequate ventilation. Do not take internally. Keep out of reach of children. Avoid contact with skin and eyes, and breathing of vapors. Wash hands thoroughly after handling, especially before eating or smoking. Keep containers tightly closed and upright when not in use. Avoid conditions which result in formation of inhalable particles such as spraying or abrading (sanding) painted surfaces. If such conditions cannot be avoided, use appropriate respiratory protection as directed under exposure controls/personal protection. Empty containers may contain hazardous residues. Ground equipment when transferring to prevent accumulation of static charge.

EXPOSURE CONTROLS/PERSONAL PROTECTION (ANSI Section 8)

Respiratory protection : Respiratory protection is required for use in isocyanate containing environments. Consider type of application and environmental concentrations when selecting respiratory protection. Observe governmental regulations for respirator use. (29 CFR 1910.134(OSHA))(Canadian z94.4) The use of positive pressure supplied air respirator is mandatory when the airborne isocyanate concentrations are not known. Note: isocyanate based materials have been determined to cause allergic sensitization in humans. Avoid inhalation and dermal (skin) contact with the uncured material.

Ventilation : Provide dilution ventilation or local exhaust to prevent build-up of vapors. Use explosion-proof equipment. Use non-sparking equipment.

Personal protective equipment : Eye wash, safety shower, safety glasses or goggles. Impervious gloves, impervious clothing, face shield, apron, boots.

STABILITY AND REACTIVITY (ANSI Section 10)

Under normal conditions : Stable see section 5 fire fighting measures

Materials to avoid : Oxidizers, acids, reducing agents, bases, aldehydes, amines, water, nitric acid, alcohols, halogenated compounds, combustible materials, caustics.

Conditions to avoid : Elevated temperatures, moisture, contact with oxidizing agent, freezing, sparks, open flame, ignition sources.

Hazardous polymerization : Will not occur

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TOXICOLOGICAL INFORMATION (ANSI Section 11)

Supplemental health information : Contains a chemical that is moderately toxic by ingestion. Contains a chemical that may be absorbed through skin. Free diisocyanate may cause allergic reaction in susceptible persons. Notice - reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Other effects of overexposure may include toxicity to liver, kidney, central nervous system, blood.

Carcinogenicity : This product can generate formaldehyde at approximately 300 degrees f (150c) and above, in the presence of oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant and potential cancer hazard. Workplace exposure to formaldehyde should be evaluated when this product is used in high temperature processes to assess whether the actual airborne concentrations exceed any of the action levels defined in the OSHA standard. The international agency for research on cancer (IARC) has evaluated ethylbenzene and classified it as a possible human carcinogen (group 2b) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. In a 2 year inhalation study conducted by the national toxicology program (NTP), ethylbenzene vapor at 750 ppm produced kidney and testicular tumors in rats and lung and liver tumors in mice. Genetic toxicity studies showed no genotoxic effects. The relevance of these results to humans is not known. In a 2-year inhalation bioassay conducted by the national toxicology program (NTP), ethylene glycol butyl ether (egbe) caused an increased incidence of liver tumors in male mice and forestomach tumors in female mice exposed to 250 ppm, the highest concentration tested with mice. In rats, an increased incidence of tumors affecting the adrenal gland was seen in females exposed at 125 ppm only. This finding was not statistically significant. No increased incidence of any tumor type was seen in male rats exposed to the highest test concentration of 125ppm. The relevance of these findings to humans is unclear. In a lifetime inhalation study, exposure to 250 mg/m3 titanium dioxide resulted in the development of lung tumors in rats. These tumors occurred only at dust levels that overwhelmed the animals' lung clearance mechanisms and were different from common human lung tumors in both type and location. The relevance of these findings to humans is unknown but questionable. The international agency for research on cancer (IARC) has classified titanium dioxide as possibly carcinogenic to humans (group 2b) based on inadequate evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.

Reproductive effects : High exposures to xylene in some animal studies, often at maternally toxic levels, have affected embryo/fetal development. The significance of this finding to humans is not known.

Mutagenicity : No mutagenic effects are anticipated

Teratogenicity : No teratogenic effects are anticipated

ECOLOGICAL INFORMATION (ANSI Section 12)

No ecological testing has been done by akzo nobel paints llc on this product as a whole.

DISPOSAL CONSIDERATIONS (ANSI Section 13)

Waste disposal : Dispose in accordance with all applicable regulations. Avoid discharge to natural waters.

REGULATORY INFORMATION (ANSI Section 15)

As of the date of this MSDS, all of the components in this product are listed (or are otherwise exempt from listing) on the TSCA inventory. This product has been classified in accordance with the hazard criteria of the CPR (controlled products regulations) and the MSDS contains all the information required by the CPR.

Physical Data (ANSI Sections 1, 9, and 14)

Product Code	Description	Wt. / Gal.	VOC gr. / ltr.	% Volatile by Volume	Flash Point	Boiling Range	HMIS	DOT, proper shipping name
389B1000	devthane 389 aliphatic urethane gloss enamel -white base	10.68	450.09	48.96	80 f	305-595	330	UN1263, paint, 3, PGIII
389B9000	devthane 389 aliphatic urethane enamel safet y red base	10.39	432.75	46.82	80 f	305-595	330	UN1263, paint, 3, PGIII
389B9100	devthane 389 aliphatic urethane gloss enamel -aluminum	9.11	490.99	54.07	80 f	237-595	330	UN1263, paint, 3, PGIII
389B9200	devthane 389 aliphatic urethane gloss enamel safety orange	9.89	448.91	48.27	80 f	300-595	*330	UN1263, paint, 3, PGIII
389B9400	devthane 389 aliphatic urethane gloss enamel -safety yellow	9.54	460.91	49.84	80 f	300-595	*330	UN1263, paint, 3, PGIII
389B9501	devthane 389 aliphatic urethane gloss enamel -deep tint base	10.70	448.71	48.69	80 f	305-595	*330	UN1263, paint, 3, PGIII
389C0910	devthane 389 aliphatic urethane gloss enamel converter	9.49	7.98	0.79	above 200f	382-382	*311	paint related material

Ingredients Product Codes with % by Weight (ANSI Section 2)

Chemical Name	Common Name	CAS. No.	389B1000	389B9000	389B9100	389B9200	389B9400	389B9501	389C0910
benzene, ethyl-	ethylbenzene	100-41-4	1-5	1-5	1-5	1-5	1-5	1-5	
2-pentanone, 4-methyl-	methyl isobutyl ketone	108-10-1			5-10				
1,3,5-trimethylbenzene	1,3,5-trimethylbenzene	108-67-8				.1-1.0	.1-1.0		
4-heptanone, 2,6-dimethyl-	diisobutyl ketone	108-83-8			1-5				
2-heptanone	methyl amyl ketone	110-43-0	10-20	10-20		5-10	5-10	10-20	
ethanol, 2-butoxy-	2-butoxyethanol	111-76-2			.1-1.0				
quaternary ammonium compounds, benzyl(hydrogenated tallow alkyl)dimethyl, stearates, salts with bentonite	rheological additive	121888-68-4						1-5	
acetic acid, butyl ester	butyl acetate	123-86-4	1-5	1-5	5-10	1-5	1-5	1-5	
benzene, dimethyl-	xylene	1330-20-7	5-10	5-10	10-20	10-20	10-20	5-10	
titanium oxide	titanium dioxide	13463-67-7	20-30			1-5	1-5	5-10	
2-heptanone, 4,6-dimethyl-	4,6-dimethyl-2-heptanone	19549-80-5			1-5				

Ingredients (Continued)

Product Codes with % by Weight (ANSI Section 2)

Chemical Name	Common Name	CAS. No.	389B1000	389B9000	389B9100	389B9200	389B9400	389B9501	389C0910
2-naphthalenecarboxamide, 4-((4(aminocarbonyl) phenyl)azo)-n-(2-ethoxyphenyl)-3-hydroxy-	monazo red pigment	2786-76-7		5-10					
hexane, 1,6-diisocyanato-, homopolymer	aliphatic polyisocyanate	28182-81-2							99-100
butyl acrylate-2-hydroxyethyl methacrylate- methacrylic acid-methyl methacrylate-styrene polymer	acrylic polyol	36179-96-1	20-30	20-30	30-40	30-40	30-40	20-30	
butanamide, 2-((2-methoxy-4-nitrophenyl)azo) -n-(2-methoxyphenyl)-3-oxo-	pigment yellow 74	6358-31-2				1-5	5-10		
solvent naphtha (petroleum), light aromatic	light aromatic solvent naphtha	64742-95-6			1-5	1-5	1-5		
aluminum	aluminum	7429-90-5			5-10				
sulfuric acid, barium salt	barium sulfate	7727-43-7	5-10	20-30	10-20	10-20	10-20	20-30	
castor oil	castor oil, raw	8001-79-4	1-5	1-5	1-5	1-5	1-5	1-5	
stoddard solvent	mineral spirits	8052-41-3			1-5				
hexane, 1,6-diisocyanato-	hexamethylene diisocyanate	822-06-0							.1-1.0
acetic acid, c6-8-branched alkyl esters	oxo-heptyl acetate	90438-79-2	5-10	5-10	5-10	5-10	5-10	5-10	
benzene,1,2,4-trimethyl-	pseudocumene	95-63-6	.1-1.0	.1-1.0	.1-1.0	1-5	1-5	.1-1.0	
substituted pyrrol	substituted pyrrol	Sup. Conf.				1-5			
orange pigment	orange pigment	Sup. Conf.				1-5			

Chemical Hazard Data

(ANSI Sections 2, 8, 11, and 15)

		ACGIH-TLV				OSHA-PEL				S.R.	S2	S3	CC					
Common Name	CAS. No.	8-Hour TWA	STEL	C	S	8-Hour TWA	STEL	C	S	Std.				H	M	N	I	O
ethylbenzene	100-41-4	100 ppm	125 ppm	not est.	not est.	100 ppm	not est.	not est.	not est.	not est.	n	y	y	y	n	n	y	n
methyl isobutyl ketone	108-10-1	20 ppm	75 ppm	not est.	not est.	100 ppm	not est.	not est.	not est.	not est.	n	y	y	y	n	n	n	n
diisobutyl ketone	108-83-8	25 ppm	not est.	not est.	not est.	50 ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
methyl amyl ketone	110-43-0	50 ppm	not est.	not est.	not est.	100 ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
2-butoxyethanol	111-76-2	20 ppm	not est.	not est.	not est.	50 ppm	not est.	not est.	y	not est.	n	y	n	n	n	n	n	n
rheological additive	121888-68-4	10 mg/m3	not est.	not est.	not est.	15 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
butyl acetate	123-86-4	150 ppm	200 ppm	not est.	not est.	150 ppm	not est.	not est.	not est.	not est.	n	n	y	n	n	n	n	n
xylene	1330-20-7	100 ppm	150 ppm	not est.	not est.	100 ppm	not est.	not est.	not est.	not est.	n	y	y	y	n	n	n	n
titanium dioxide	13463-67-7	10 mg/m3	not est.	not est.	not est.	10 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	y	y	n
4,6-dimethyl-2-heptanone	19549-80-5	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
monazo red pigment	2786-76-7	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
aliphatic polyisocyanate	28182-81-2	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
pigment yellow 74	6358-31-2	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
light aromatic solvent naphtha	64742-95-6	not est.	not est.	not est.	not est.	500x ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
aluminum	7429-90-5	1 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	y	n	n	n	n	n	n
barium sulfate	7727-43-7	10 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
castor oil, raw	8001-79-4	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
mineral spirits	8052-41-3	100 ppm	not est.	not est.	not est.	500 ppm	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
hexamethylene diisocyanate	822-06-0	0.005 ppm	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	y	y	y	n	n	n	n
oxo-heptyl acetate	90438-79-2	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
pseudocumene	95-63-6	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	y	n	n	n	n	n	n
substituted pyrrol	Sup. Conf.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
orange pigment	Sup. Conf.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n

Footnotes:

C=Ceiling - Concentration that should not be exceeded, even instantaneously.

S=Skin - Additional exposure, over and above airborn exposure, may result from skin absorption.

n/a=not applicable
not est=not established
CC=CERCLA Chemical

ppm=parts per million
mg/m3=milligrams per cubic meter
Sup Conf=Supplier Confidential

S2=Sara Section 302 EHS
S3=Sara Section 313 Chemical
S.R.Std.=Supplier Recommended Standard

H=Hazardous Air Pollutant, M=Marine Pollutant
P=Pollutant, S=Severe Pollutant
Carcinogenicity Listed By:
N=NTP, I=IARC, O=OSHA, y=yes, n=no