



MATERIAL SAFETY DATA SHEET

• ISOCYANATE ACTIVATORS • HARDENERS • ADDITIVES

SECTION I:

Manufacturer's Name: Autobody Brands International
Address: Via Linda Professional Plaza
9188 San Salvador, Suite 105
Scottsdale, AZ 85258

Emergency Phone #: Chemtrec (800) 424-9300
Information Phone #: (480) 451-4451
D.O.T. Hazardous Class: Paint, Flammable Liquid UN 1263
Revision Date: 02/23/00

SECTION II - Hazardous Ingredients. (See Section X for specific products' codes.)

CODE NO.	HAZARDOUS INGREDIENT	EMERG. PLAN	NO.	CAS NO.	ACGIH TLV ppm	OSHA PEL ppm	STEL** ppm	HMS HFR	FLASH POINT T.C.C./F	VAPOR PRESSURE Mm/Hg
1	n-BUTYL ACETATE	YES		123-86-4	150	150	200	2-3-0	81	10 @ 20 C
2	ACETONE	YES		67-64-1	750	750	1000	1-3-0	<-1.0	182 @ 20 C
3	TOLUENE	YES	4	108-88-3	50	100	150	2-3-0	45	47 @ 20 C
4	ISOPROPYL ALCOHOL	YES		67-63-0	400	400	500	1-3-0	53	32 @ 20 C
5	DIETHYLENE GLYCOL MONOBUTYL ETHER	YES		112-34-5	N/E	N/E	N/E	1-2-0	226 PMCC	.10 @ 25 C
6	DIISOBUTYL KETONE	NO		108-83-8	25	25	N/E	2-2-0	120	1.7 @ 20 C
7	ETHYL ACETATE 99%	YES		141-78-6	400	400	N/E	1-3-0	24	86 @ 20 C
8	PROPYLENE GLYCOL MONO-METHYL ETHER ACETATE	NO		108-65-6	N/E	N/E	N/E	2-3-0	114 Seta closed	2.4 @ 20 C
9	2-BUTOXYETHYL ACETATE	NO		112-07-02	N/E	N/E	N/E	2-2-0	160	0.3 @ 20 C
10	VM&P NAPHTHA	NO		8032-32-4	300	300	N/E	1-3-0	18	38 @ 68 F
11	ETHYLENE GLYCOL MONO-ETHYL ETHER ACETATE	NO		111-15-9	25	25	N/E	1-2-0	154	0.6 @ 20 C
12	AROMATIC HYDROCARBONS	NO		64742-95-6	50	50	150	1-3-0	110	3 @ 20 C
13	ETHYL 3-ETHOXY PROPINATE	YES		763-69-9	N/E	N/E	100	1-2-0	136	1.5 @ 20 C
14	XYLENE	YES	3	1330-20-7	100	100	150	2-3-0	77	9.5 @ 20 C
15	MINERAL SPIRITS	NO		8052-41-3	100	100	100	1-2-0	100	<1 @ 20 C
16	ISOBUTYL ACETATE	NO		110-19-0	150	150	187	1-3-0	62	14.8 @ 20C
17	N-BUTYL ALCOHOL	YES		71-36-3	50	50	N/E	2-3-0	97	5.5 @ 20 c
18	METHYL ETHYL KETONE	YES		78-93-3	200	200	300	3-3-0	16	85 @ 20 C
19	METHYL AMYL KETONE	NO		110-43-0	50	100	N/E	1-2-0	102	2.1 @ 20 C
20	DIBASIC ESTER	NO		1119-40-0	N/E	N/E	N/E	1-1-0	212	0.2 @ 20 C
21	POLYMERIC HEXAMETHYLENE DIISOCYANATE	NO	1	822-06-0	0.05	0.02	N/E	3-0-0	N/E	N/E
22	POLYMERIC ISOPHRONE DIISOCYANATE	NO	2	4098-71-9	N/E	N/E	N/E	2-1-0	N/E	N/E
23	FILM FORMERS, RESINS, AND ADDITIVES	NO								
24	HEXYL ACETATE	NO		80230-35-7	N/E	N/E	N/E	2-2-0	135	1.4 @ 68 F

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CODE NO.	HAZARDOUS INGREDIENT	EMERG. PLAN	NOTE	CAS NO.	ACGIH TLV ppm	OSHA PEL ppm	HMIS HFR	FLASH POINT T.C.C./F	VAPOR PRESSURE Mm/Hg	
25	HEPTYL ACETATE	NO		90438-79-2	N/E	N/E	N/E	1-2-0	151	1 @ 68 F
26	METHYL ISOBUTYL KETONE	YES		108-10-1	50	50	75	2-3-0	60	16 @ 20 C
27	DIACETONE ALCOHOL	NO		123-42-2	50	50	N/E	2-3-0	133	<1.0 @ 20C
28	PHOSPHORIC ACID	YES		7664-38	TWA=1.0 mg/m3	TWA=1.0 mg/m3	3 mg/m3	3-0-0	N/A	6 @ 104 F
29	TRIMER OF HEXAMETHYLENE DIISOCYANATE	YES	1	3779-63-3	25	25	N/E	2-2-1	117	N/E
30	ISOCATE PREPOLYMER	NO						2-3-1	80	<5 @ 20 C
31	ETHYL BENZENE	YES	3	100-41-4	100	100	150	2-3-0	77	7.1 @ 68f

* Subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.

** Short Term Exposure Limit

Note 1 - Free Hexamethylene Diisocyanate monomer (HDI) is less than 0.7% by weight of total HDI

Note 2 - Free Isophrone Diisocyanate monomer (IPDI) is less than 0.7% by weight of total IPDI

Note 3 - Xylene contains 18-20% Ethyl Benzene (CAS#100-41-4) having PEL of 100 ppm, TLV of 100 ppm & STEL of 125 ppm.

Note 4 - Toluene is known to the state of California to cause birth defects or other reproductive harm.

N/E - Not established as reported by manufacturer.

SECTION III - PHYSICAL DATA

Evaporation Rate: Slower than ether

Solubility in water: Miscible

Boiling range: 129-426 F

Gallon weight (# per gal.): 6.70-22.00#

Vapor Density: Heavier than air

Volume % volatile: 19.4 - 80.9%

Weight % volatile: 15.3 - 76.0%

V.O.C. (# per gal.): 0.0 - 7.5

SECTION IV - FIRE & EXPLOSION DATA

Flash point (Closed cup): -4 to 212 degrees F.

Approximate flammable limits: 0.9% - 14%.

Extinguishing media: Foam, carbon dioxide, and dry chemical.

Special fire fighting procedures: Full protective equipment, including self-contained breathing apparatus, is recommended. Water from fog nozzles may be used to cool closed containers to prevent pressure build up.

Unusual fire & explosion hazards: 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 V - HEALTH HAZARD DATA**GENERAL EFFECTS**

Ingestion: Gastro-intestinal distress. In the unlikely event of ingestion, call a physician immediately and have the names of the ingredients available.

Inhalation: May cause nose and throat irritation. Repeated and prolonged overexposure to solvents may lead to permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are signs that solvent levels are too high. Exposure to isocyanates may cause respiratory sensitization. This effect may be permanent. Symptoms include and asthma-like reaction with shortness of breath, wheezing or coughing which may be permanent. 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 reaction to isocyanates must not be exposed to the vapors or spray mist of this product. If affected by inhalation of vapor or spray mist, remove to fresh air. If breathing difficulty persists, or occurs later, consult a physician.

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. 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 with soap and water. If irritation occurs, contact a physician.

SPECIFIC EFFECTS

Butyl acetate: Recurrent overexposure may result in liver and kidney injury. Tests for embryotoxic activity in animals has been inconclusive. **Toluene:** Recurrent overexposure may result in liver and kidney injury. High airborne levels have produced irregular heartbeats in animals and occasional palpitations in humans. Rats exposed to very high airborne levels have exhibited high frequency hearing deficits. Toluene has been found in the state of California to cause birth defects or other reproductive harm. **Diethylene Glycol-Monobutyl Ether:** Contact may cause skin irritation with discomfort or rash. Can be absorbed through the skin in harmful amounts. Recurrent overexposure may result in liver and kidney injury. High doses in laboratory animals have shown n on specific effects such as irritation, weight loss, moderate blood changes. Tests for mutagenic activity in bacterial or mammalian cell cultures have been inconclusive. **Ethyl acetate:** Prolonged and repeated high exposures of laboratory animals resulted in secondary anemia with an increase in white blood cells; fatty degeneration, cloudy swelling, and an excess of blood in various organs. **Aromatic hydrocarbon:** Recurrent overexposure may result in liver and kidney injury. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother.

SECTION V - HEALTH HAZARD DATA (CONT.)

Aliphatic Polyisocyanate or Polymeric Isophorone Diisocyanate or Polyisocyanate: Repeated exposure may cause allergic skin rash, itching, and swelling. Repeated overexposure to isocyanates may cause lung injury, including a decrease in lung function, which may be permanent. Over exposure may cause asthma-like reactions with shortness of breath, wheezing, and cough which may be permanent or permanent lung sensitization. This effect may be delayed for several hours after exposure. Individuals with pre-existing lung disease, asthma or breathing difficulties may have increased susceptibility to the toxicity of excessive exposures. **1,6 Hexamethylene Diisocyanate:** May cause temporary upper respiratory and/or lung irritation with cough, difficult breathing, or shortness of breath. Over exposure may cause asthma-like reactions with shortness of breath, wheezing, cough or permanent lung sensitization. This effect may be delayed for several hours after exposure. Prolonged skin contact may cause chemical burns. Liquid splashes in the eye may result in chemical burns. Individuals with pre-existing lung disease, asthma or breathing difficulties may have increased susceptibility to the toxicity of excessive exposures. **Ethylene Glycol Monobutyl Ether Acetate:** can be absorbed through the skin in harmful amounts. May destroy red blood cells. May cause abnormal kidney function.

SECTION VI - REACTIVITY DATA

Stability: Stable
Incompatibility (materials to avoid): None, reasonably foreseeable
Hazardous decomposition products: CO, CO₂, and smoke
Hazardous polymerization: Will not occur

SECTION VII - SPILL or LEAK PROCEDURES

Steps to be taken in case material is released or spilled: DO NOT breathe vapors. DO NOT get in eyes or on skin. Wear a positive pressure supplied air vapor/particulate respirator (NIOSH/MSHA TC-19C), eye protection, gloves and protective clothing. Remove sources of ignition. Absorb with inert material. Ventilate area. Pour liquid decontaminate solution over the spill and allow to sit 10 minutes, minimum.
Typical decontamination solutions are: 20% surfactant (Tergitol TMN 10), 80% Water OR 0-10% Ammonia, 2-5% Detergent, Balance Water
Waste disposal method: DO NOT allow material to contaminate ground water systems. Incinerate absorbed material in accordance with federal, state, and local requirements. DO NOT incinerate in closed containers.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory: DO NOT breathe vapors or mists. Wear a positive pressure supplied air respirator (NIOSH/MSHA TC-19C) while mixing activator with any paint or clear enamel, during application and until all vapors and spray mists are exhausted. Individuals with a history of lung or breathing problems or prior reaction to isocyanate should not use or be exposed to this product. DO NOT permit anyone without protection in the painting area. Follow the respirator manufacturer's directions for respirator use.
Ventilation: Provide sufficient ventilation in volume and pattern to keep contaminants below applicable OSHA requirements.
Protective clothing: Neoprene gloves and coveralls are recommended.
Eye protection: Desirable in all industrial situations. Include splash guards or side shields.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storing: Observe label precautions. Keep away from heat, sparks, and flame. Close container after each use. Ground containers when pouring. Wash thoroughly after handling and before eating or smoking. Do not store above 120 degrees F.
Other precautions: DO NOT sand, flame cut, braze, or weld dry coating without a NIOSH/MSHA approved respirator or appropriate ventilation.

SECTION X - PRODUCT CODES AND INFORMATION

PRODUCT NUMBER	COMPOSITION: % BY WEIGHT (HAZARDOUS INGREDIENTS)	EMERG. PLAN.*	FLASH POINT /° F	OSHA FLAM. CLASS	HMS H FR	VOC LBS/GL	BOILING POINT /° F
5103	1)20-30% 3)18% 12)0-10% 14)11% 21)40-45%	YES	45 TCC/F	IB	1-3-0	4.70	230-311 F
5104	1)20-30% 8)15-25% 12)0-10% 14)7% 21)25-40%	YES	59 TCC/F	IB	1-3-0	4.81	246-311 F

TAMG/MSDS

5105	1)0-10% 9)0-10% 12)10-20% 13)20-30% 21)45-50%	YES	76 TCC/F	IB	2-3-0	4.36	248-370 F
5108	30) 1)5-15% 14)10 31) 21)<1%	YES	59.0 TCC/F	IB	2-3-0	2.19	248-281 F
5111, 5113, 5150, 5151	1)35-45% 12)0-10% 21)30-45% 22)5-20%	YES	76 TCC/F	IB	1-3-0	3.92	248-311 F
5112, 5160, 5161	1)0-10% 12)0-10% 19)25-35% 21)30-45% 22)5-20%	YES	76 TCC/F	IB	1-3-0	3.69	248-311 F
5115	1)0-10% 14)39% 21)35-40% 26)10%	YES	45-80 TCC/F	IB	1-3-0	5.32	243-281 F
5117, 5119	1)40-50% 21) 40-50%	YES	76-150 TCC/F	IB	2-3-1	4.12	248 F
5120, 5121	1)5-15% 3)15% 7)0-10% 8)25-35% 12)0-10% 22)25-35%	YES	24 TCC/F	IB	2-3-0	6.16	169-311 F
5132	1)0-10% 3)24% 12) 0-10% 14)24% 22)25-30% 24)0-10%	YES	45 TCC/F	IB	2-3-0	5.68	230-327 F
5140	1)25-35% 3)8% 7)5-15% 12)0-10% 21)45-50%	YES	24 TCC/F	IB	2-3-0	4.55	169-311 F
5170, 5171	1)25-35% 3)14% 12)0-10% 22)35-40%	YES	20 TCC/F	IB	1-3-0	4.81	230-311 F
5176							
5177							
5178							
5193	30)70-75% 7)5-15% 1)0-10% 12)0-10% 9)0- 10% 21)<1%	YES	24 TCC/F	IB	2-3-0	2.28	169-370 F
5406, 5407	1)5-15% 3)34% 8)20-30% 14)3% 21)20-25%	YES	45-150 TCC/F	IB	2-3-0	6.09	230-284 F
5411, 5413	4)88% 17)10% 27)0-10%	YES	56 TCC/F	IB	2-3-0	6.56	172-317 F
5416, 5418	4)0-10% 18)82% 27)0-10% 28)0-10%	YES	23 TCC/F	IB	2-3-0	6.09	174-317 F
5436							
5441	3)12% 4)22% 8)5-15% 14)6% 17)3% 18)15% 19) 0-10%	YES	23-150 TCC/F	IB	2-3-0	6.51	174-300 F
5442	1)13% 3)6% 4)11% 8)5-15% 14)2% 18)8% 19)0-10% 20)2%	YES	23 TCC/F	IB	2-3-0	4.42	174-309 F
5456	30)45-50% 3)30 8)15-25% 1)5-15% 14)10% 31)2 21)<1%	YES	45 TCC F	IB	2-3-0	6.09	230-284 F

* Products indicated are subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.

~ NFPA ratings for individual products have not been established. The ratings given are the highest rating of any ingredient contained in that product.

NOTICE: The data in this Material Safety Data Sheet relate only to the specific material designated herein and do not relate to use in combination with any other material or in any process.