

Polyurethane Binder Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 04/14/2018 Revision date: 04/14/2018 Supersedes: 04/14/2018 Version: 1.0

SECTION 1: Identification	
1.1. Identification	
Product form	: Mixtures
Product name	: Polyurethane Binder
Product code	: PB-350
1.2. Recommended use and restrictions of	on use
No additional information available	
1.3. Supplier	
Color By Design, Inc.	
407 W. Main Haven, KS 67543	
T 620-465-2600	
info@colorbydesigninc.com	
1.4. Emergency telephone number	
Emergency number	: 620-728-4044
SECTION 2: Hazard(s) identification	
2.1. Classification of the substance or mi	xture
GHS US classification	
Flammable liquids Category 3	Flammable liquid and vapour
Acute toxicity (dermal) Category 4	Harmful in contact with skin
Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2	Causes skin irritation Causes serious eye irritation
Germ cell mutagenicity Category 1B	May cause genetic defects
Carcinogenicity Category 2 Specific target organ toxicity (repeated exposure)	Suspected of causing cancer
Category 2	May cause damage to organs through prolonged or repeated exposure
2.2. GHS Label elements, including preca	utionary statements
GHS US labeling	
Hazard pictograms (GHS US)	
	GHS02 GHS07 GHS08
Signal word (GHS US)	: Danger
Hazard statements (GHS US)	: Flammable liquid and vapour
	Harmful in contact with skin
	Causes skin irritation
	Causes serious eye irritation May cause genetic defects
	Suspected of causing cancer
	May cause damage to organs through prolonged or repeated exposure
Precautionary statements (GHS US)	May cause damage to organs through prolonged or repeated exposure : Obtain special instructions before use.
Precautionary statements (GHS US)	 May cause damage to organs through prolonged or repeated exposure Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking.
Precautionary statements (GHS US)	 May cause damage to organs through prolonged or repeated exposure Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Keep container tightly closed.
Precautionary statements (GHS US)	 May cause damage to organs through prolonged or repeated exposure Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking.
Precautionary statements (GHS US)	 May cause damage to organs through prolonged or repeated exposure Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting equipment Use only non-sparking tools.
Precautionary statements (GHS US)	 May cause damage to organs through prolonged or repeated exposure Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting equipment Use only non-sparking tools. Take precautionary measures against static discharge.
Precautionary statements (GHS US)	 May cause damage to organs through prolonged or repeated exposure Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting equipment Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust, fume, gas, mist, vapors, spray Wash hands, forearms and face thoroughly after handling.
Precautionary statements (GHS US)	 May cause damage to organs through prolonged or repeated exposure Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting equipment Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust, fume, gas, mist, vapors, spray Wash hands, forearms and face thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements (GHS US)	 May cause damage to organs through prolonged or repeated exposure Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting equipment Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust, fume, gas, mist, vapors, spray Wash hands, forearms and face thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of water
Precautionary statements (GHS US)	 May cause damage to organs through prolonged or repeated exposure Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting equipment Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust, fume, gas, mist, vapors, spray Wash hands, forearms and face thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements (GHS US) 02/19/2019	 May cause damage to organs through prolonged or repeated exposure Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting equipment Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust, fume, gas, mist, vapors, spray Wash hands, forearms and face thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. If on skin: Wash with plenty of water If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If exposed or concerned: Get medical advice/attention. Call a poison center or doctor if you feel unwell Get medical advice/attention if you feel unwell. Specific treatment (see supplemental first aid instruction on this label) Specific treatment (see supplemental first aid instruction on this label) If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use media other than water to extinguish. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
solvent naphtha (petroleum), light aromatic	(CAS-No.) 64742-95-6	> 32.076	Flam. Liq. 2, H225 Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304
1,2,4-Trimethylbenzene	(CAS-No.) 95-63-6	< 10.368	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 2, H411
ethylbenzene	(CAS-No.) 100-41-4	7.6	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304
cumene	(CAS-No.) 98-82-8	< 0.3564	Flam. Liq. 3, H226 Carc. 1B, H350 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures		
4.1. Description of first aid measures		
First-aid measures general	: IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell.	
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.	
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.	
First-aid measures after eye contact	: Rinse eyes with water as a precaution.	
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.	
4.2. Most important symptoms and effect	ts (acute and delayed)	
Symptoms/effects after skin contact	: Irritation.	
4.3. Immediate medical attention and spe	ecial treatment, if necessary	

Treat symptomatically.

Polyurethane Binder Safety Data Sheet

OFOTI				
	ON 5: Fire-fighting measures			
5.1. Suitable (and unsuitable) extinguishing media				
Suitable	extinguishing media	Water spray. Dry powder. Foam. Carbon dioxide.		
5.2.	5.2. Specific hazards arising from the chemical			
Fire haza	ird :	Flammable liquid and vapour.		
Reactivity	/	Flammable liquid and vapour.		
5.3.	Special protective equipment and pre-	cautions for fire-fighters		
Protection	n during firefighting :	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.		
SECTIO	ON 6: Accidental release measu	ires		
6.1.	Personal precautions, protective equi	pment and emergency procedures		
6.1.1.	For non-emergency personnel			
Emergen	cy procedures :	No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust, fume, gas, mist, vapors, spray.		
6.1.2.	For emergency responders			
Protective	e equipment :	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".		
6.2.	Environmental precautions			
Avoid rele	ease to the environment. Notify authorities	s if product enters sewers or public waters.		
6.3.	Methods and material for containment			
Methods	for cleaning up :	Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.		
Other info	ormation :	Dispose of materials or solid residues at an authorized site.		
6.4.	Reference to other sections			
For furthe	er information refer to section 13.			
SECTIO	ON 7: Handling and storage			
7.1.	Precautions for safe handling			
Precautic	ons for safe handling :	Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe dust, fume, gas, mist, vapors, spray. Do not get in eyes, on skin, or on clothing.		
Hygiene	measures :	Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.		
7.2.	Conditions for safe storage, including	any incompatibilities		
Technica	l measures :	Ground/bond container and receiving equipment.		
Storage of	conditions :	Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.		
SECTIO	ON 8: Exposure controls/persor	nal protection		
8.1.	Control parameters			

B.1. Control pa			
Polyurethane Bind	er		
ACGIH	ACGIH TWA (ppm)	100 ppm	
ACGIH	ACGIH STEL (ppm)	150 ppm	
ACGIH	Remark (ACGIH)	URT & eye irr; CNS impair	
OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³	
OSHA	OSHA PEL (TWA) (ppm)	100 ppm	
2/19/2019	EN (English US)	1	3/11

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

ethylbenzene (100-41-4)			
ACGIH	ACGIH TWA (ppm)	20 ppm (Ethyl benzene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)	
ACGIH	Remark (ACGIH)	URT irr; kidney dam (nephropathy)	
OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³	
OSHA	OSHA PEL (TWA) (ppm)	100 ppm	
solvent naphtha (petrole	um), light aromatic (64742-95-6)		
ACGIH	ACGIH TWA (mg/m ³)	200 mg/m ³	
ACGIH	ACGIH TWA (ppm)	200 ppm	
OSHA	OSHA PEL (TWA) (ppm)	200	
OSHA	OSHA PEL (STEL) (ppm)	500	
cumene (98-82-8)			
ACGIH	ACGIH TWA (ppm)	50 ppm (Cumene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)	
ACGIH	Remark (ACGIH)	Lung cancer; liver and lung dam; A2 (Suspected Human Carcinogen: Human data are accepted as adequate in quality but are conflicting or insufficient to classify the agent as a confirmed human carcinogen; OR, the agent is carcinogenic in experimental animals at dose(s), by route(s) of exposure, at site(s), of histologic type(s), or by mechanism(s) considered relevant to worker exposure. The A2 is used primarily when there is limited evidence or carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans)	
OSHA	OSHA PEL (TWA) (mg/m ³)	245 mg/m ³	
OSHA	OSHA PEL (TWA) (ppm)	50 ppm	
1,2,4-Trimethylbenzene (95-63-6)		
ACGIH	ACGIH TWA (ppm)	25 ppm (Trimethyl benzene (mixed isomers); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)	

8.2. Appropriate engineering controls

Appropriate engineering controls

Environmental exposure controls

: Ensure good ventilation of the work station.

re controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection.

SECTION 9: Physical and chemical properties			
9.1. Information on basic physical and	9.1. Information on basic physical and chemical properties		
Physical state	: Liquid		
Color	: clear		

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Odor	 There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour(s): Petroleum-like odour Sweet odour Aromatic odour No data available on odour Irritating/pungen odour
Odor threshold	: No data available
рН	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 281 - 287 °F
Flash point	: 80 °F TCC
Relative evaporation rate (butyl acetate=1)	: 0.8
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 7.2
Relative vapor density at 20 °C	: No data available
Relative density	: 1.03
Specific gravity / density	: 1.033
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTI	SECTION 10: Stability and reactivity			
10.1.	Reactivity			
Flamma	ble liquid and vapour.			
10.2.	Chemical stability			
Stable u	inder normal conditions.			
10.3.	Possibility of hazardous reactions			
No dang	No dangerous reactions known under normal conditions of use.			
10.4.	Conditions to avoid			
Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.				
10.5.	Incompatible materials			
No addit	No additional information available			

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information		
11.1.	Information on toxicological effects	

Acute toxicity

: Dermal: Harmful in contact with skin.

Polyurethane Binder	
LD50 oral rat	3500 mg/kg
LD50 dermal rat	1100 mg/kg
ATE US (oral)	3500.000 mg/kg body weight
ATE US (dermal) 1100.000 mg/kg body weight	

Safety Data Sheet

ethylbenzene (100-41-4)		
LD50 oral rat 3500 mg/kg (Rat; Other; Experimental value)		
LD50 dermal rabbit	15415 mg/kg (Rabbit; Literature study; Other; 15432 mg/kg; Rabbit; Experimental value)	
LC50 inhalation rat (mg/l)	17.8 mg/l/4h (Rat; Literature study)	
LC50 inhalation rat (ppm)	4000 ppm/4h (Rat; Literature study)	
ATE US (oral)	3500.000 mg/kg body weight	
ATE US (dermal)	15415.000 mg/kg body weight	
ATE US (gases)	4000.000 ppmV/4h	
ATE US (vapors)	17.800 mg/l/4h	
ATE US (dust, mist)	1.500 mg/l/4h	
solvent naphtha (petroleum), light aromatic		
LD50 oral rat	3492 mg/kg	
LD50 dermal rabbit	> 3160 mg/kg	
LC50 inhalation rat (ppm)	> 6193 ppm/4h	
ATE US (oral)	3492.000 mg/kg body weight	
	3432.000 mg/kg body weight	
cumene (98-82-8)		
LD50 oral rat	> 2000 mg/kg (Rat; Other; Literature study; 4000 mg/kg bodyweight; Rat; Other; Inconclusive, insufficient data)	
LD50 dermal rabbit	10578 mg/kg (Rabbit; Literature study; Other)	
LC50 inhalation rat (mg/l)	40 mg/l/4h (Rat; Literature study)	
LC50 inhalation rat (ppm)	8000 ppm/4h (Rat; Literature study)	
ATE US (dermal)	10578.000 mg/kg body weight	
ATE US (gases)	8000.000 ppmV/4h	
ATE US (vapors)	40.000 mg/l/4h	
ATE US (dust, mist)	40.000 mg/l/4h	
1,2,4-Trimethylbenzene (95-63-6)		
LD50 oral rat	> 5000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature; 6000 mg/kg bodyweight; Rat; Experimental value)	
LD50 dermal rat	> 3440 mg/kg (Rat; Read-across; OECD 402: Acute Dermal Toxicity)	
LC50 inhalation rat (mg/l)	18 mg/l/4h (Rat)	
ATE US (gases)	4500.000 ppmV/4h	
ATE US (vapors)	18.000 mg/l/4h	
ATE US (dust, mist)	1.500 mg/l/4h	
Skin corrosion/irritation	: Causes skin irritation.	
Serious eye damage/irritation	: Causes serious eye irritation.	
Respiratory or skin sensitization	: Not classified	
Germ cell mutagenicity	: May cause genetic defects.	
Carcinogenicity		
	: Suspected of causing cancer.	
Polyurethane Binder		
IARC group	2B - Possibly carcinogenic to humans, 3 - Not classifiable	
ethylbenzene (100-41-4)		
IARC group	2B - Possibly carcinogenic to humans	
cumene (98-82-8)		
IARC group	2B - Possibly carcinogenic to humans	
National Toxicity Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen	
Reproductive toxicity	: Not classified	
Specific target organ toxicity – single exposure		
Specific larger organ loxicity – single exposure	: Not classified	
solvent naphtha (petroleum), light aromatic	(64742-95-6)	
Target organ(s)	liver	

Safety Data Sheet

cumene (98-82-8)	
Target organ(s)	liver kidneys central nervous system
Specific target organ toxicity – repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Symptoms/effects after skin contact	: Irritation.
SECTION 12: Ecological informati	on
2.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
ethylbenzene (100-41-4)	
LC50 fish 2	4.2 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Salmo gairdneri; Semi-static system; Fresh water; Experimental value)
cumene (98-82-8)	
EC50 Daphnia 1	2.14 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
1,2,4-Trimethylbenzene (95-63-6)	
LC50 fish 1	7.72 mg/l (LC50; 96 h; Pimephales promelas; Flow-through system; Fresh water)
EC50 Daphnia 1	3.6 mg/l (LC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 2	2.356 mg/l (EC50; ECOSAR; 96 h; Algae; Fresh water)
2.2. Persistence and degradability	
ethylbenzene (100-41-4)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.44 g O ₂ /g substance (20d.)
Chemical oxygen demand (COD)	2.1 g O_2/g substance
ThOD	3.17 g O ₂ /g substance
BOD (% of ThOD)	45.4 (20 days)
cumene (98-82-8)	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.28 g O ₂ /g substance
Chemical oxygen demand (COD)	2.42 g O ₂ /g substance
ThOD	3.2 g O ₂ /g substance
BOD (% of ThOD)	0.4
1,2,4-Trimethylbenzene (95-63-6)	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Low potential for mobility in soil. Photodegradation in the air.
Chemical oxygen demand (COD)	0.44 g O ₂ /g substance
12.3. Bioaccumulative potential	
ethylbenzene (100-41-4)	
BCF fish 1	1 (BCF; Other; 6 weeks; Oncorhynchus kisutch; Flow-through system; Salt water; Literature study)
BCF fish 2	15 - 79 (BCF)
BCF other aquatic organisms 1	4.68 (BCF)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

solvent naphtha (petroleum), light aromatic (64742-95-6)		
Log Pow	2.1 - 6	
cumene (98-82-8)		
BCF fish 1	35.5 (BCF)	
BCF other aquatic organisms 1	94.69 (BCF; BCFBAF v3.00)	
Log Pow	3.66 (Experimental value; 3.55; Experimental value; OECD 107: Partition Coefficient (n- octanol/water): Shake Flask Method; 23 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
1,2,4-Trimethylbenzene (95-63-6)		
BCF fish 1	31 - 275 (BCF; Other; 8 weeks; Cyprinus carpio)	
Log Pow	3.63 - 4.09 (Experimental value)	
Bioaccumulative potential	Potential for bioaccumulation ($4 \ge Log$ Kow ≤ 5).	

12.4. Mobility in soil

ethylbenzene (100-41-4)			
Surface tension	0.029 N/m		
Log Koc	log Koc,PCKOCWIN v1.66; 2.71; Calculated value; Koc; PCKOCWIN v1.66; 517.8; Calculated value		
cumene (98-82-8)			
Log Koc	Koc,884; Calculated value; log Koc; 2.946; Calculated value		
1,2,4-Trimethylbenzene (95-63-6)			
Surface tension	0.029 N/m		
Log Koc	log Koc,3.04; Calculated value		
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.		

12.5. Other adverse effects

Effect on the global warming	
GWPmix comment	

: No known effects from this product.

: No known effects from this product.

SECTION 13: Disposal consideration	ns
13.1. Disposal methods	
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: Flammable vapors may accumulate in the container.
SECTION 14: Transport information	
SECTION 14: Transport information Department of Transportation (DOT)	

UN-No.(DOT) Proper Shipping Name (DOT)	: UN1263 : Paint
Class (DOT)	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT)	: III - Minor Danger
Hazard labels (DOT)	: 3 - Flammable liquid
	FLAMMABLE LIQUID
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 173
DOT Packaging Bulk (49 CFR 173.xxx)	: 242

Polyurethane Binder Safety Data Sheet

DOT Special Provisions (49 CFR 172.102)	 B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable. B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T2 - 1.5 178.274(d)(2) Normal
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 220 L
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Emergency Response Guide (ERG) Number	: 128
Other information	: No supplementary information available.
Transportation of Dangerous Goods Not applicable	
Transport by sea	
Transport document description (IMDG)	: UN 1263 PAINT, 3, III
UN-No. (IMDG)	: 1263
Proper Shipping Name (IMDG)	: PAINT
Class (IMDG)	: 3 - Flammable liquids
Packing group (IMDG)	: III - substances presenting low danger
Limited quantities (IMDG)	: 5L
Air transport	
Transport document description (IATA)	: UN 1263 Paint, 3, III
UN-No. (IATA)	: 1263
	: Paint
Proper Shipping Name (IATA)	: 3 - Flammable Liquids
Proper Shipping Name (IATA) Class (IATA)	. 5 - Flammable Eliquius

ethylbenzene (100-41-4)		
	(Toxic Substances Control Act) inventory of United States SARA Section 313	
CERCLA RQ	1000 lb	
solvent naphtha (petroleum), lig	ht aromatic (64742-95-6)	
Listed on the United States TSCA	(Toxic Substances Control Act) inventor	

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

cumene (98-82-8)	
Listed on the United States TSCA (Toxic Substan Subject to reporting requirements of United States	
CERCLA RQ	5000 lb
1,2,4-Trimethylbenzene (95-63-6)	
Listed on the United States TSCA (Toxic Substan Subject to reporting requirements of United States	

15.2. International regulations
CANADA
ethylbenzene (100-41-4)
Listed on the Canadian DSL (Domestic Substances List)
solvent naphtha (petroleum), light aromatic (64742-95-6)
Listed on the Canadian DSL (Domestic Substances List)
cumene (98-82-8)
Listed on the Canadian DSL (Domestic Substances List)
1,2,4-Trimethylbenzene (95-63-6)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

ethylbenzene (100-41-4) Listed on IARC (International Agency for Research on Cancer) cumene (98-82-8) Listed on IARC (International Agency for Research on Cancer) Listed as carcinogen on NTP (National Toxicology Program)

15.3. US State regulations

ethylbenzene (100-41-4)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	54
cumene (98-82-8)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

ethylbenzene (100-41-4)

U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

cumene (98-82-8)

U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

1,2,4-Trimethylbenzene (95-63-6)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

text of H-phrases:	
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H340	May cause genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product