

Material Name: VeroGlaze MED620 MSDS ID: DOC-06164US\_B

In Compliance with Regulation 29 CFR 1910.1200

## \* \* \*Section 1 - IDENTIFICATION\* \* \*

Material Name: VeroGlaze MED620

**Chemical Family** 

acrylic compounds

#### **Recommended Use**

This product is a cartridge containing ink. Under normal conditions of use, the substance is released from a cartridge only inside an appropriate printing system, and therefore, exposure is limited.

#### **Restrictions on Use**

None known.

#### Manufacturer Information

Stratasyst, Inc. Phone: 1-877-489-9449

5 Fortune Drive

Billerica, MA 01821 Emergency # +1 978 495 5580

E-mail: info@stratasys.com, www.stratasys.com

## 24 Hour Emergency Telephone Service

+49 722 97772280 - Europe - Multi lingual response

+49 722 97772281 - Global - English Language response

+1 978 495 5580 - USA - Multi lingual response

+85 2 975 70887 - Asia Pacific - Multi lingual response

+61 2 8011 4763 - Australia - Multi lingual response

+86 15626070595 - China - Chinese response

## \* \* \*Section 2 - HAZARDS IDENTIFICATION\* \* \*

#### Classification in accordance with 29 CFR 1910.1200

Acute Toxicity (Oral), Category 4

Eye Damage / Irritation, Category 1

Skin Corrosion / Irritation, Category 2

Skin sensitizer, Category 1

Toxic to Reproduction, Category 2

Specific Target Organ Toxicity - Single Exposure, Category 3 (respiratory system)

Specific Target Organ Toxicity - Repeated Exposure, Category 2

Hazardous to the Aquatic Environment - Chronic Hazard, Category 2

## **GHS LABEL ELEMENTS**

## Symbol(s)



## Signal Word

**DANGER** 



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#### **Hazard Statement(s)**

Harmful if swallowed.

Causes serious eye damage.

Causes skin irritation.

May cause an allergic skin reaction.

May cause respiratory irritation.

Suspected of damaging fertility or the unborn child.

May cause damage to organs through prolonged or repeated exposure.

Toxic to aquatic life with long lasting effects.

## **Precautionary Statement(s)**

#### Prevention

Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Wear protective gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use Personal Protective equipment as required. Use only outdoors or in a well-ventilated area. Do not breathe vapor or mist.

## Response

Immediately call a POISON CENTER or doctor/physician. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before re-use. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Continue rinsing. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

#### Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

## Disposal

Dispose in accordance with all applicable regulations.

## Hazard(s) Not Otherwise Classified

None known.

## \* \* \*Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS\* \* \*

CAS	Component	Percent
	Acrylic monomer	<30
5888-33-5	Exo-1,7,7-Trimethylbicyclo [2.2.1]hept-2-yl acrylate	<25
	Acrylic oligomer	<15
	Photo initiator	<3
13463-67-7	Titanium dioxide	<0.8
52408-84-1	Acrylic acid ester	<0.3
1333-86-4	Carbon black	0.1-1
1330-20-7	Xylenes (o-, m-, p- isomers)	0.01-0.1
123-86-4	n-Butyl acetate	0.01-0.1
100-41-4	Ethylbenzene	0.01-0.1
108-65-6	Propylene glycol monomethyl ether acetate	0.01-0.1
7664-38-2	Phosphoric acid	0.0005-0.002



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#### Additional Information

**Notes:** Under normal conditions of use, the substance is released from a cartridge only inside an appropriate printing system, and therefore, exposure is limited. The liquid within the cartridges is considered hazardous, and the MSDS has been prepared in case of exposure to the liquid.

TITANIUM DIOXIDE is present in a low concentration, dispersed in a liquid

## \* \* \*Section 4 - FIRST AID MEASURES\* \* \*

## **Description of Necessary Measures**

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

#### Skin

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before re-use.

#### **Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

## Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

#### **Most Important Symptoms/Effects**

#### Acute

respiratory tract irritation, eye damage, skin irritation, allergic skin reaction

## Delayed

allergic reactions, reproductive effects, May cause damage to organs through prolonged or repeated exposure.

### **Indication of Immediate Medical Attention and Special Treatment**

If adverse effects occur, treat symptomatically and supportively.

## \* \* \*Section 5 - FIRE FIGHTING MEASURES\* \* \*

#### **Suitable Extinguishing Media**

Use extinguishing agents appropriate for surrounding fire. Class B fires: Use carbon dioxide (CO2), regular dry chemical (sodium bicarbonate), regular form (Aqueous Film Forming Foam-AFFF), or water spray to cool containers.

## **Unsuitable Extinguishing Media**

None known.

## **Specific Hazards Arising from the Chemical**

Slight fire hazard.

#### **Hazardous Combustion Products**

Combustion: oxides of carbon

#### **Fire Fighting Measures**

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Keep unnecessary people away, isolate hazard area and deny entry. Keep out of water supplies and sewers. Avoid inhalation of material or combustion by-products.



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#### **Special Protective Equipment and Precautions for Firefighters**

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure. Avoid inhalation of material or combustion by-products.

## \* \* \*Section 6 - ACCIDENTAL RELEASE MEASURES\* \* \*

## Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

## Methods and Materials for Containment and Cleaning Up

Intact cartridges do not pose a leak or spill hazard. Damaged cartridges may leak uncured ink. Stop leak if possible without personal risk. Reduce vapors with water spray. Absorb with sand or other non-combustible material. Collect spilled material with an inert absorbent such as sand or vermiculite. Place in properly labeled closed container. Dispose in accordance with all applicable regulations. Keep out of water supplies and sewers. Flush spill area with water.

## \* \* \*Section 7 - HANDLING AND STORAGE\* \* \*

#### **Precautions for Safe Handling**

Do not breathe vapor or mist. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.

#### Conditions for Safe Storage, including any Incompatibilities

Store in accordance with all current regulations and standards. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store between 15 °C and 25 °C (59 °F and 77 °F). Shipment temperature (up to 5 weeks) is -20 °C (-4 °F) to 50 °C (122 °F). Store in a combustible storage area away from heat and open flame. Store in a cool, dry place. Avoid direct sunlight. Keep in the dark. Keep separated from incompatible substances. Uncured ink will polymerize on exposure to light or heat rendering the product unusable. However, this reaction is not considered hazardous.

Incompatibilities Not applicable under normal conditions of use and storage.

## \* \* \*Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION\* \* \*

### **Component Exposure Limits**

#### **Titanium dioxide (13463-67-7)**

ACGIH: 10 mg/m3 TWA
NIOSH: 5000 mg/m3 IDLH

OSHA (US): 15 mg/m3 TWA (total dust)

Mexico: 10 mg/m3 TWA LMPE-PPT (as Ti)

20 mg/m3 STEL [LMPE-CT] (as Ti)

Carbon black (1333-86-4)

ACGIH: 3 mg/m3 TWA (inhalable fraction)

NIOSH: 3.5 mg/m3 TWA; 0.1 mg/m3 TWA (Carbon black in presence of Polycyclic aromatic

hydrocarbons, as PAH)

1750 mg/m3 IDLH

OSHA (US): 3.5 mg/m3 TWA

Mexico: 3.5 mg/m3 TWA LMPE-PPT



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7 mg/m3 STEL [LMPE-CT]

Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: 100 ppm TWA

150 ppm STEL

Europe: 50 ppm TWA (pure); 221 mg/m3 TWA (pure)

Possibility of significant uptake through the skin

100 ppm STEL (pure); 442 mg/m3 STEL (pure)

OSHA (US): 100 ppm TWA; 435 mg/m3 TWA

Mexico: 100 ppm TWA LMPE-PPT; 435 mg/m3 TWA LMPE-PPT

150 ppm STEL [LMPE-CT]; 655 mg/m3 STEL [LMPE-CT]

n-Butyl acetate (123-86-4)

ACGIH: 150 ppm TWA

200 ppm STEL

NIOSH: 150 ppm TWA; 710 mg/m3 TWA

200 ppm STEL; 950 mg/m3 STEL

1700 ppm IDLH (10% LEL)

**OSHA (US):** 150 ppm TWA; 710 mg/m3 TWA

Mexico: 150 ppm TWA LMPE-PPT; 710 mg/m3 TWA LMPE-PPT

200 ppm STEL [LMPE-CT]; 950 mg/m3 STEL [LMPE-CT]

Ethylbenzene (100-41-4)

ACGIH: 20 ppm TWA

NIOSH: 100 ppm TWA; 435 mg/m3 TWA

125 ppm STEL; 545 mg/m3 STEL

800 ppm IDLH (10% LEL)

Europe: 100 ppm TWA; 442 mg/m3 TWA

Possibility of significant uptake through the skin

200 ppm STEL; 884 mg/m3 STEL

**OSHA (US):** 100 ppm TWA; 435 mg/m3 TWA

**Mexico:** 100 ppm TWA LMPE-PPT; 435 mg/m3 TWA LMPE-PPT

125 ppm STEL [LMPE-CT]; 545 mg/m3 STEL [LMPE-CT]

Propylene glycol monomethyl ether acetate (108-65-6)

Europe: 50 ppm TWA; 275 mg/m3 TWA

Possibility of significant uptake through the skin

100 ppm STEL; 550 mg/m3 STEL

**Phosphoric acid (7664-38-2)** 

ACGIH: 1 mg/m3 TWA

3 mg/m3 STEL

NIOSH: 1 mg/m3 TWA

3 mg/m3 STEL 1000 mg/m3 IDLH

Europe: 1 mg/m3 TWA

2 mg/m3 STEL

OSHA (US): 1 mg/m3 TWA

Mexico: 1 mg/m3 TWA LMPE-PPT

3 mg/m3 STEL [LMPE-CT]

**Component Analysis** 

There are no biological limit values for any of this product's components.

**Appropriate Engineering Controls** 

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Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

## Individual Protection Measures, such as Personal Protective Equipment

#### **Eyes/Face Protection**

Eye protection not required under normal conditions. Chemical goggles or safety glasses with side shields should be worn when handling a damaged cartridge.

#### **Skin Protection**

Protective clothing is not required under normal conditions. Wear neoprene or nitrile impervious gloves when handling damaged cartridge. Wash contaminated clothing before reuse.

## **Glove Recommendations**

Wear neoprene or nitrile impervious gloves when handling damaged cartridge.

## **Respiratory Protection**

Respiratory protection is not generally needed when using this product.

## \* \* \*Section 9 - PHYSICAL AND CHEMICAL PROPERTIES\* \* \*

Physical State:	Liquid	Appearance:	ink cartridge containing beige liquid ink
Color:	beige	Physical Form:	liquid
Odor:	characteristic odor	Odor Threshold:	Not available
pH:	Not applicable	Melting Point:	Not available
Boiling Point:	Not available	Decomposition:	Not available
Flash Point:	> 100 °C (>212°F)	Evaporation Rate:	Not available
LEL:	Not available	UEL:	Not available
Vapor Pressure:	Not available	Vapor Density (air = 1):	Not available
Density:	Not available	Specific Gravity (water = 1):	Not available
Water Solubility:	Not available	Coeff. Water/Oil Dist:	Not available
Auto Ignition:	Not available	Viscosity:	Not available
Volatility:	Not available		

## **Other Property Information**

No additional information is available.

## \* \* \*Section 10 - STABILITY AND REACTIVITY\* \* \*

#### **Chemical Stability**

Store between 15 °C and 25 °C (59 °F and 77 °F).

### **Possibility of Hazardous Reactions**

Uncured ink will polymerize on exposure to light or heat rendering the product unusable. However, this reaction is not considered hazardous.

#### **Conditions to Avoid**

Avoid exposure to heat or light.

#### **Incompatible Materials**

Not applicable under normal conditions of use and storage.

## **Hazardous Decomposition**

Combustion: oxides of carbon



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## \* \* \*Section 11 - TOXICOLOGICAL INFORMATION\* \* \*

## **Acute and Chronic Toxicity**

No hazard is expected from the normal use of this product. While unlikely, uncured ink may leak from damaged ink cartridges and cause skin and eye irritation. Contact with eyes may cause eye irritation, inflammation, or eye damage. Contact with skin may cause tingling sensation or skin irritation.

#### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

## **Titanium dioxide (13463-67-7)**

Oral LD50 Rat >10000 mg/kg

## Xylenes (o-, m-, p- isomers) (1330-20-7)

Inhalation LC50 Rat 47635 mg/L 4 h; Oral LD50 Rat 4300 mg/kg

## n-Butyl acetate (123-86-4)

Dermal LD50 Rabbit >17600 mg/kg; Inhalation LC50 Rat 390 ppm 4 h

## Ethylbenzene (100-41-4)

Inhalation LC50 Rat 17.2 mg/L 4 h; Oral LD50 Rat 3500 mg/kg; Dermal LD50 Rabbit 15354 mg/kg

## Propylene glycol monomethyl ether acetate (108-65-6)

Dermal LD50 Rabbit >5 g/kg; Oral LD50 Rat 8532 mg/kg

#### Phosphoric acid (7664-38-2)

Oral LD50 Rat 1530 mg/kg; Dermal LD50 Rabbit 2730 mg/kg; Inhalation LC50 Rat >850 mg/m3 1 h

## **Acute Toxicity Level**

## **Titanium dioxide (13463-67-7)**

Moderately Toxic: inhalation Slightly Toxic: ingestion

## Xylenes (o-, m-, p- isomers) (1330-20-7)

Moderately Toxic: inhalation, ingestion

#### n-Butyl acetate (123-86-4)

**Highly Toxic:** inhalation **Slightly Toxic:** ingestion

#### Ethylbenzene (100-41-4)

Moderately Toxic: ingestion

Slightly Toxic: inhalation, dermal absorption

#### Propylene glycol monomethyl ether acetate (108-65-6)

Slightly Toxic: inhalation, ingestion

#### **Phosphoric acid (7664-38-2)**

Highly Toxic: inhalation Moderately Toxic: ingestion

#### Information on Likely Routes of Exposure

#### Inhalation

irritation

### Ingestion

Harmful if swallowed.

#### **Skin Contact**

allergic reactions, irritation

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#### **Eye Contact**

burns

#### **Immediate Effects**

respiratory tract irritation, eye damage, skin irritation, allergic reactions

## **Delayed Effects**

allergic reactions, reproductive effects, May cause damage to organs through prolonged or repeated exposure.

## **Medical Conditions Aggravated by Exposure**

None known.

#### Irritation/Corrosivity Data

Contact with uncured ink may cause eye damage and skin irritation. Inhalation may cause respiratory tract irritation.

## **Respiratory Sensitization**

No data available for the mixture.

#### **Dermal Sensitization**

Component data indicate the substance is sensitizing. Uncured ink may cause an allergic response in sensitized individuals.

#### Carcinogenicity

#### **Component Carcinogenicity**

## **Titanium dioxide (13463-67-7)**

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 93 [2010]; Monograph 47 [1989] (Group 2B (possibly carcinogenic to humans))

DFG: Category 3A (could be carcinogenic for man, inhalable fraction with the exception of ultra small

particles)

## Carbon black (1333-86-4)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

IARC: Monograph 93 [2010]; Monograph 65 [1996] (Group 2B (possibly carcinogenic to humans))

**DFG:** Category 3B (could be carcinogenic for man, inhalable fraction)

### Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

#### **Ethylbenzene (100-41-4)**

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans IARC: Monograph 77 [2000] (Group 2B (possibly carcinogenic to humans))

**DFG:** Category 4 (no significant contribution to human cancer)

## **Mutagenic Data**

No data available for the mixture.

#### **Reproductive Effects Data**

Available data characterizes components of this product as reproductive hazards.

## **Tumorigenic Data**

No data available for the mixture.

## **Additional Data**

Uncured ink may polymerize and adhere to tissue.

## **Specific Target Organ Toxicity - Single Exposure**

respiratory system



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#### Specific Target Organ Toxicity - Repeated Exposure

May cause damage to organs through prolonged or repeated exposure

## **Aspiration Hazard**

No data available for the mixture.

## \* \* \*Section 12 - ECOLOGICAL INFORMATION\* \* \*

#### **Ecotoxicity**

Harmful to aquatic life with long lasting effects.

## **Component Analysis - Aquatic Toxicity**

Data may be available for the product or its components (if applicable, see below).

Carbon black (1333-86-4)

Invertebrate: 24 Hr EC50 Daphnia magna: >5600 mg/L

Xylenes (o-, m-, p- isomers) (1330-20-7)

Fish: 96 Hr LC50 Pimephales promelas: 13.4 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus

mykiss: 2.661 - 4.093 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 13.5 - 17.3 mg/L; 96 Hr LC50 Lepomis macrochirus: 13.1 - 16.5 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 19 mg/L; 96 Hr LC50 Lepomis macrochirus: 7.711 - 9.591 mg/L [static]; 96 Hr LC50 Pimephales promelas: 23.53 - 29.97 mg/L [static]; 96 Hr LC50 Cyprinus carpio: >780 mg/L [semi-static]; 96 Hr LC50 Cyprinus carpio: >780 mg/L; 96 Hr

LC50 Poecilia reticulata: 30.26 - 40.75 mg/L [static]

Invertebrate: 48 Hr EC50 water flea: 3.82 mg/L; 48 Hr LC50 Gammarus lacustris: 0.6 mg/L

n-Butyl acetate (123-86-4)

Fish: 96 Hr LC50 Pimephales promelas: 17 - 19 mg/L [flow-through]; 96 Hr LC50 Lepomis

macrochirus: 100 mg/L [static]; 96 Hr LC50 Leuciscus idus: 62 mg/L [static]

Algae: 72 Hr EC50 Desmodesmus subspicatus: 674.7 mg/L

Invertebrate: 24 Hr EC50 Daphnia magna: 72.8 mg/L

Ethylbenzene (100-41-4)

Fish: 96 Hr LC50 Oncorhynchus mykiss: 11.0 - 18.0 mg/L [static]; 96 Hr LC50 Oncorhynchus

mykiss: 4.2 mg/L [semi-static]; 96 Hr LC50 Pimephales promelas: 7.55 - 11 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 32 mg/L [static]; 96 Hr LC50 Pimephales promelas: 9.1 - 15.6 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 9.6 mg/L [static]

Algae: 72 Hr EC50 Pseudokirchneriella subcapitata: 4.6 mg/L; 96 Hr EC50

Pseudokirchneriella subcapitata: >438 mg/L; 72 Hr EC50 Pseudokirchneriella

subcapitata: 2.6 - 11.3 mg/L [static]; 96 Hr EC50 Pseudokirchneriella subcapitata: 1.7 -

7.6 mg/L [static]

Invertebrate: 48 Hr EC50 Daphnia magna: 1.8 - 2.4 mg/L

Propylene glycol monomethyl ether acetate (108-65-6)

Fish: 96 Hr LC50 Pimephales promelas: 161 mg/L [static]

Invertebrate: 48 Hr EC50 Daphnia magna: >500 mg/L

Phosphoric acid (7664-38-2)

Fish: 96 Hr LC50 Gambusia affinis: 3 - 3.5 mg/L

Invertebrate: 12 Hr EC50 Daphnia magna: 4.6 mg/L

Persistence and Degradability

No data available.

**Bioaccumulative Potential** 

No data available.



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#### **Mobility**

No data available.

## \* \* \*Section 13 - DISPOSAL CONSIDERATIONS\* \* \*

## **Disposal Methods**

Dispose in accordance with all applicable regulations.

Refer to manufacturer/supplier for information on recovery/recycling. Do not landfill. Avoid discharge into drains or surface water. See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

#### **Component Waste Numbers**

Xylenes (o-, m-, p- isomers) (1330-20-7)

RCRA: waste number U239 (Ignitable waste)

## \* \* \*Section 14 - TRANSPORT INFORMATION\* \* \*

#### **US DOT Information**

Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Contains: exo-1,7,7 - trimethylbicyclo (2.2.1)

hept - 2 - yl acrylate)

UN/NA #: UN3082 Hazard Class: 9 Packing Group: III

Required Label(s): 9

#### **IMDG Information**

Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Contains: exo-1,7,7 - trimethylbicyclo (2.2.1)

hept - 2 - yl acrylate)

UN #: UN3082 Hazard Class: 9 Packing Group: III

Required Label(s): 9

## \* \* \*Section 15 - REGULATORY INFORMATION\* \* \*

#### **Component Analysis**

## **U.S. Federal Regulations**

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

## Acrylic monomer (5117-12-4)

TSCA 12b: Section 5, 1 % de minimus concentration EPA: P-95-0169

Xylenes (o-, m-, p- isomers) (1330-20-7)

SARA 313: 1.0 % de minimis concentration CERCLA: 100 lb final RQ; 45.4 kg final RQ

n-Butyl acetate (123-86-4)

CERCLA: 5000 lb final RQ; 2270 kg final RQ

**Ethylbenzene (100-41-4)** 

SARA 313: 0.1 % de minimis concentration CERCLA: 1000 lb final RQ; 454 kg final RQ



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Phosphoric acid (7664-38-2)

CERCLA: 5000 lb final RQ; 2270 kg final RQ

SARA 311/312 Hazardous Categories

Acute Health: Yes Chronic Health: Yes Fire: No Pressure: No Reactive: No



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## **U.S. State Regulations**

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Titanium dioxide	13463-67-7	No	Yes	Yes	Yes	Yes
Carbon black	1333-86-4	Yes	Yes	Yes	Yes	Yes
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	Yes	Yes	Yes	Yes
n-Butyl acetate	123-86-4	Yes	Yes	Yes	Yes	Yes
Ethylbenzene	100-41-4	Yes	Yes	Yes	Yes	Yes
Phosphoric acid	7664-38-2	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

## **Canada Regulations**

WHMIS CLASSIFICATION: D2A, D2B.

## Canadian WHMIS Ingredient Disclosure List (IDL)

No components are listed in the WHMIS IDL.

## **Component Analysis - Inventory**

Component	CAS	US	CA
Acrylic monomer		Yes	NSL
Exo-1,7,7-Trimethylbicyclo [2.2.1]hept-2-yl acrylate	5888-33-5	Yes	DSL
Acrylic oligomer		Yes	DSL
Photo initiator		Yes	DSL
Titanium dioxide	13463-67-7	Yes	DSL
Acrylic acid ester	52408-84-1	Yes	DSL
Carbon black	1333-86-4	Yes	DSL
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	DSL
n-Butyl acetate	123-86-4	Yes	DSL
Ethylbenzene	100-41-4	Yes	DSL
Propylene glycol monomethyl ether acetate	108-65-6	Yes	DSL
Phosphoric acid	7664-38-2	Yes	DSL

## \* \* \*Section 16 - OTHER INFORMATION\* \* \*

## **Summary of Changes**

New MSDS: April 22, 2013

NFPA Ratings: Health: 3 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

HMIS Ratings: Health: 3 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard



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#### Key / Legend

ADR - European Road Transport; EEC - European Economic Community; EIN (EINECS) - European Inventory of Existing Commercial Chemical Substances; ELN (ELINCS) - European List of Notified Chemical Substances; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; Kow - Octanol/water partition coefficient; LEL - Lower Explosive Limit; RID - European Rail Transport; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TWA - Time Weighted Average; UEL - Upper Explosive Limit

#### Other Information

The information in this safety data sheet is based on data and samples provided to a third party SDS author. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned in this safety data sheet. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question.

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