

Issue Date: 22-Oct-2011

Revision Date: 11-Feb-2014

Version 1

## 1. IDENTIFICATION

**Product Identifier**

**Product Name** Inter-Mix 90 Hybrid Panel Bonder (Resin Base)

**Other means of identification**

**SDS #** IES-8422R  
**Other Information** Product #8422 and #8423.

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Structural adhesive resin base (use with hardener).

**Details of the supplier of the safety data sheet**

**Supplier Address**  
International Epoxies & Sealers  
30241 Commerce Drive  
San Antonio, FL 33576

**Emergency Telephone Number**

**Company Phone Number** 1-800-451-7206  
**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Black viscous liquid

**Physical State** Liquid

**Classification**

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 2

**Signal Word**

Danger

**Hazard Statements**

Causes skin irritation  
Causes serious eye irritation  
May cause an allergic skin reaction  
May cause genetic defects  
Suspected of causing cancer



**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wash face, hands and any exposed skin thoroughly after handling  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Contaminated work clothing should not be allowed out of the workplace

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention  
 IF ON SKIN: Wash with plenty of soap and water  
 Take off contaminated clothing and wash it before reuse  
 IN CASE OF FIRE: Use CO2, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep cool.

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Toxic to aquatic life with long lasting effects

**Unknown Acute Toxicity**

44% of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No	Weight-%
Bisphenol A - Epichlorohydrin polymer	25068-38-6	30-60
1,4-bis((2,3-epoxypropoxy)methyl)cyclohexane	14228-73-0	7-13
Fused Silica	60676-86-0	1-10
Synthetic Amorphous Silica	67762-90-7	1-10
Glass Beads	65997-17-3	1-5
(3-Glycidyloxypropyl)trimethoxysilane	2530-83-8	0.5-1.5
Stoddard solvent	8052-41-3	<0.3
Carbon Black	1333-86-4	<0.6
Alkyl Phenol Blocked Polyisocyanate	Proprietary	5-20

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

#### 4. FIRST-AID MEASURES

##### First Aid Measures

<b>General Advice</b>	If exposed or concerned: Get medical advice/attention.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing. Wash contaminated clothing before reuse. Get medical attention.
<b>Inhalation</b>	Remove to fresh air. Get medical attention if symptoms occur.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting. Give two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

##### Most important symptoms and effects

<b>Symptoms</b>	Symptoms of inhalation may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Symptoms of eye contact may include redness, swelling, pain, tearing, and blurred or hazy vision. May cause blisters and sores. Abdominal pain, stomach upset, nausea, vomiting and diarrhea.
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##### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Treat symptomatically.
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#### 5. FIRE-FIGHTING MEASURES

##### Suitable Extinguishing Media

Use fire extinguishers with class B extinguishing agents. Dry chemical. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable Extinguishing Media** Water spray may be ineffective.

##### Specific Hazards Arising from the Chemical

No specific fire or explosion hazard.

##### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray to keep fire-exposed containers cool.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment and emergency procedures

<b>Personal Precautions</b>	Use personal protective equipment as required.
<b>Environmental Precautions</b>	See Section 12 for additional Ecological Information.

##### Methods and material for containment and cleaning up

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Clean-Up</b>	Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with water. Spills and releases may have to be reported to Federal and/or local authorities. See section 15.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### Advice on Safe Handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Wash thoroughly after handling. Avoid breathing vapors or mists. Contaminated work clothing should not be allowed out of the workplace. Carefully vent any internal pressure before removing closure. Avoid contact with skin and eyes. Avoid breathing dust created by cutting, sanding, grinding, or machining. Do not eat, drink or smoke when using this product.

### Conditions for safe storage, including any incompatibilities

#### Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Keep away from heat.

#### Incompatible Materials

None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Fused Silica 60676-86-0	-	(vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (80)/(% SiO <sub>2</sub> ) mg/m <sup>3</sup> TWA TWA: 20 mppcf	-
Glass Beads 65997-17-3	TWA: 1 fiber/cm <sup>3</sup> respirable fibers: length >5 μm, aspect ratio >=3:1, as determined by the membrane filter method at 400-450X magnification [4-mm objective], using phase-contrast illumination TWA: 5 mg/m <sup>3</sup> inhalable fraction	-	-
Carbon Black 1333-86-4	TWA: 3 mg/m <sup>3</sup> inhalable fraction	TWA: 3.5 mg/m <sup>3</sup> (vacated) TWA: 3.5 mg/m <sup>3</sup>	IDLH: 1750 mg/m <sup>3</sup> TWA: 3.5 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> Carbon black in presence of Polycyclic aromatic hydrocarbons PAH
Stoddard solvent 8052-41-3	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m <sup>3</sup> (vacated) TWA: 100 ppm (vacated) TWA: 525 mg/m <sup>3</sup>	IDLH: 20000 mg/m <sup>3</sup> Ceiling: 1800 mg/m <sup>3</sup> 15 min TWA: 350 mg/m <sup>3</sup>

### Appropriate engineering controls

#### Engineering Controls

Use a local exhaust or general dilution ventilation system.

### Individual protection measures, such as personal protective equipment

#### Eye/Face Protection

Safety glasses with side-shields. Indirect vented goggles.

#### Skin and Body Protection

Consult the glove manufacturer for the most appropriate glove material. Use body protection appropriate for task. Nitrile or Neoprene gloves may afford adequate skin protection.

#### Respiratory Protection

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half face-piece or full-face air-purifying respirator with P95 particulate filters.

**General Hygiene Considerations** Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Odor</b>	Not determined
<b>Appearance</b>	Black viscous liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Black		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not applicable	
Melting Point/Freezing Point	Not applicable	
Boiling Point/Boiling Range	>= 35 °C / 95 °F	
Flash Point	> 104 °C / 219 °F	CC (closed cup)
Evaporation Rate	< 1	(butyl acetate = 1)
Flammability (Solid, Gas)	n/a-liquid	
Upper Flammability Limits	No data available	
Lower Flammability Limit	No data available	
Vapor Pressure	<5 mm Hg	
Vapor Density	No data available	
Specific Gravity	~1.19	(1=Water)
Water Solubility	Negligible	
Solubility in other solvents	Not determined	
Partition Coefficient	No data available	
Auto-ignition Temperature	No data available	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	>400 centistokes	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
VOC Content	No data available	
Density	9.9 lb/gal	

**10. STABILITY AND REACTIVITY**

Reactivity  
Not reactive under normal conditions.

Chemical Stability  
Stable under recommended storage conditions.

Possibility of Hazardous Reactions  
None under normal processing.

**Hazardous Polymerization**      Hazardous polymerization does not occur.

Conditions to Avoid  
Heat, flames and sparks.

Incompatible Materials  
None known based on information supplied.

Hazardous Decomposition Products  
Carbon oxides. Aldehydes.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**

- Eye Contact** Causes serious eye irritation.
- Skin Contact** May cause an allergic skin reaction. Causes skin irritation.
- Inhalation** Avoid breathing vapors or mists.
- Ingestion** Do not taste or swallow.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Bisphenol A - Epichlorohydrin polymer 25068-38-8	= 11400 mg/kg ( Rat )	20000 mg/kg (rabbit)	-
(3-Glycidyloxypropyl)trimethoxysilane 2530-83-8	= 22600 µL/kg ( Rat )	= 3970 µL/kg ( Rabbit )	-
Carbon Black 1333-86-4	> 15400 mg/kg ( Rat )	> 3 g/kg ( Rabbit )	-

**Information on physical, chemical and toxicological effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

- Sensitization** May cause an allergic skin reaction.
- Germ cell mutagenicity** May cause genetic defects.
- Carcinogenicity** Suspected of causing cancer.

Chemical Name	ACGIH	IARC	NTP	OSHA
Fused Silica 60676-86-0		Group 3		
Glass Beads 65997-17-3		Group 3		
Carbon Black 1333-86-4	A3	Group 2B		X

**Legend**

- ACGIH (American Conference of Governmental Industrial Hygienists)
- A3 - Animal Carcinogen
- IARC (International Agency for Research on Cancer)
- Group 2B - Possibly Carcinogenic to Humans
- Group 3 IARC components are "not classifiable as human carcinogens"
- OSHA (Occupational Safety and Health Administration of the US Department of Labor)
- X - Present

**Numerical measures of toxicity**

Not determined

**Unknown Acute Toxicity** 44% of the mixture consists of ingredient(s) of unknown toxicity.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Toxic to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Carbon Black 1333-86-4				5600: 24 h Daphnia magna mg/L EC50

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Not determined

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS**

**Waste Treatment Methods**

- Disposal of Wastes**                      Disposal should be in accordance with applicable regional, national and local laws and regulations.
- Contaminated Packaging**              Disposal should be in accordance with applicable regional, national and local laws and regulations.

**14. TRANSPORT INFORMATION**

- Note**    Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.
- DOT**    Not regulated
- IATA**    Not regulated
- IMDG**  
**Marine Pollutant**                              This material may meet the definition of a marine pollutant

**15. REGULATORY INFORMATION**

**International Inventories**

<b>TSCA</b>	Listed
<b>DSL</b>	Listed
<b>EINECS</b>	Listed
<b>AICS</b>	Listed

**Legend:**

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*
- AICS - Australian Inventory of Chemical Substances*

**US Federal Regulations**

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**SARA 313**

Not determined

**US State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Carbon Black - 1333-86-4	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Fused Silica 60676-86-0	X	X	
Carbon Black 1333-86-4	X	X	X
Stoddard solvent 8052-41-3	X	X	X



**16. OTHER INFORMATION**

<u><b>NFPA</b></u>	<b>Health Hazards</b> 3	<b>Flammability</b> 1	<b>Instability</b> 0	<b>Special Hazards</b> None
<u><b>HMIS</b></u>	<b>Health Hazards</b> Not determined	<b>Flammability</b> Not determined	<b>Physical Hazards</b> Not determined	<b>Personal Protection</b> Not determined

**Issue Date:** 22-Oct-2011  
**Revision Date:** 11-Feb-2014  
**Revision Note:** New format

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

# Safety Data Sheet

Issue Date: 22-Oct-2011

Revision Date: 11-Feb-2014

Version 1

## 1. IDENTIFICATION

### Product Identifier

**Product Name** Inter-Mix 90 Hybrid Panel Bonder (Hardener)

### Other means of identification

**SDS #** IES-8422H  
**Other Information** Product #8422 and #8423.

### Recommended use of the chemical and restrictions on use

**Recommended Use** Structural adhesive hardener (use with base).

### Details of the supplier of the safety data sheet

**Supplier Address**  
International Epoxies & Sealers  
30241 Commerce Drive  
San Antonio, FL 33576

### Emergency Telephone Number

**Company Phone Number** 1-800-451-7206  
**Emergency Telephone (24 hr)** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Tan viscous liquid      **Physical State** Liquid      **Odor** slight amine

### Classification

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Germ cell mutagenicity	Category 1B
Reproductive toxicity	Category 2

### Hazards Not Otherwise Classified (HNOC)

May be harmful in contact with skin

### Signal Word

Danger

### Hazard Statements

Harmful if swallowed  
Causes skin irritation  
Causes serious eye damage  
May cause an allergic skin reaction  
May cause genetic defects  
Suspected of damaging fertility or the unborn child

**Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention  
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  
IF ON SKIN: Wash with plenty of soap and water  
Take off contaminated clothing and wash it before reuse  
Get immediate medical advice/attention  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
Rinse mouth

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Toxic to aquatic life with long lasting effects

**Unknown Acute Toxicity**

54.5% of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No	Weight-%
9,12-Octadecadienoic Acid (Z,Z), dimer, polymer	68541-13-9	15-40
Amine Terminated Liquid Copolymer	68683-29-4	5-25
Fused Silica	60676-86-0	4-10
3,3-[Oxybis(2,1-ethane-diyloxy)]bis-1-propylamine	4246-51-9	2-8
Benzyl alcohol	100-51-6	2-8
Synthetic Amorphous Silica	67762-90-7	1-5
Imidazole	288-32-4	1-5
Bisphenol A	80-05-7	1-5
N-Aminoethyl piperazine	140-31-8	1-5
Nonylphenol	25154-52-3	1-5
Triethylene tetramine	112-24-3	<1
Stoddard solvent	8052-41-3	<0.3
Benzyl dimethylamine	103-83-3	<1

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

**4. FIRST-AID MEASURES****First Aid Measures**

<b>General Advice</b>	If exposed or concerned: Get medical advice/attention.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing. Wash contaminated clothing before reuse. Get medical attention immediately.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting. Give two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Most important symptoms and effects**

<b>Symptoms</b>	Symptoms of eye contact may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision, or complete loss of vision. Symptoms of skin contact may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction. Symptoms of inhalation may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Symptoms of ingestion may include severe mouth, throat, and abdominal pain; nausea, vomiting, and diarrhea; blood in the feces and/or vomitus may also be seen.
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**Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically.
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**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media**

Use fire extinguishers with class B extinguishing agents. Dry chemical. Carbon dioxide (CO2).

**Unsuitable Extinguishing Media** Water or foam may cause frothing.

**Specific Hazards Arising from the Chemical**

No specific fire or explosion hazard.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Use personal protective equipment as required.

**Environmental Precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up** Contain and collect with an inert absorbent and place into an appropriate container for disposal. Spills and releases may have to be reported to Federal and/or local authorities. See section 15. Clean up residue with an appropriate organic solvent.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on Safe Handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protection recommended in Section 8. Wash thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Carefully vent any internal pressure before removing closure. Avoid contact with skin and eyes. Avoid breathing dust created by cutting, sanding, grinding, or machining.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Store away from incompatible materials. Protect from direct sunlight. Keep away from heat.

**Incompatible Materials** Strong oxidizing agents.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Fused Silica 60676-86-0	-	(vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (80)(% SiO <sub>2</sub> ) mg/m <sup>3</sup> TWA TWA: 20 mppcf	-
Stoddard solvent 8052-41-3	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m <sup>3</sup> (vacated) TWA: 100 ppm (vacated) TWA: 525 mg/m <sup>3</sup>	IDLH: 20000 mg/m <sup>3</sup> Ceiling: 1800 mg/m <sup>3</sup> 15 min TWA: 350 mg/m <sup>3</sup>

Appropriate engineering controls

**Engineering Controls** Use a local exhaust or general dilution ventilation system.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Full-face shield. Safety glasses with side-shields. Indirect vented goggles.
- Skin and Body Protection** Consult the glove manufacturer for the most appropriate glove material. Use body protection appropriate for task. Nitrile or Neoprene gloves may afford adequate skin protection.
- Respiratory Protection** Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half face-piece or full-face air-purifying respirator with P95 particulate filters.
- General Hygiene Considerations** Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	<b>Odor</b>	slight amine
<b>Appearance</b>	Tan viscous liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Tan		
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	Not applicable		
Melting Point/Freezing Point	Not applicable		
Boiling Point/Boiling Range	>= 110 °C / 230 °F		
Flash Point	> 93 °C / 200 °F	CC (closed cup)	
Evaporation Rate	< 1		
Flammability (Solid, Gas)	n/a-liquid		
Upper Flammability Limits	No data available		
Lower Flammability Limit	No data available		
Vapor Pressure	No data available		
Vapor Density	No data available		
Specific Gravity	~1.07	(1=Water)	
Water Solubility	Negligible		
Solubility in other solvents	Not determined		
Partition Coefficient	No data available		
Auto-ignition Temperature	No data available		
Decomposition Temperature	Not determined		
Kinematic Viscosity	Not determined		
Dynamic Viscosity	>400 centistokes		
Explosive Properties	Not determined		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Oxidizing Properties	Not determined	
VOC Content	No data available	
Density	8.94 lb/gal	

### 10. STABILITY AND REACTIVITY

**Reactivity**

Not reactive under normal conditions.

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous Polymerization**      Hazardous polymerization does not occur.

**Conditions to Avoid**

Keep out of reach of children.

**Incompatible Materials**

Strong oxidizing agents.

**Hazardous Decomposition Products**

Carbon oxides.

### 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product Information**

<b>Eye Contact</b>	Causes serious eye damage.
<b>Skin Contact</b>	May cause an allergic skin reaction. Causes skin irritation. May be harmful in contact with skin.
<b>Inhalation</b>	Avoid breathing vapors or mists.
<b>Ingestion</b>	Harmful if swallowed.

**Component Information**

<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Inhalation LC50</u>
2,4,6-tri(dimethylaminomethyl)phenol 90-72-2	= 1000 mg/kg ( Rat )	= 1280 mg/kg ( Rat )	-
3,3-[Oxybis(2,1-ethane-dioxy)]bis-1-propylamine 4246-51-9	= 4290 µL/kg ( Rat )	= 2500 µL/kg ( Rabbit )	-
Benzyl alcohol 100-51-6	= 1230 mg/kg ( Rat )	= 2000 mg/kg ( Rabbit )	= 8.8 mg/L ( Rat ) 4 h
Imidazole 288-32-4	= 220 mg/kg ( Rat )	-	-
Bisphenol A 80-05-7	= 3200 mg/kg ( Rat )	= 3000 mg/kg ( Rabbit )	-
N-Aminoethyl piperazine 140-31-8	= 2140 mg/kg ( Rat )	= 880 mg/kg ( Rabbit )	-
Nonylphenol 25154-52-3	= 580 mg/kg ( Rat )	= 2031 mg/kg ( Rabbit )	-
Triethylene tetramine 112-24-3	= 2500 mg/kg ( Rat )	= 550 mg/kg ( Rabbit )	-
Benzyl dimethylamine 103-83-3	= 265 mg/kg ( Rat )	= 1660 mg/kg ( Rabbit )	-

**Information on physical, chemical and toxicological effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** May cause an allergic skin reaction.

**Germ cell mutagenicity** May cause genetic defects.

**Carcinogenicity** Not classifiable as a human carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Fused Silica 60676-86-0		Group 3		

**Legend**

*IARC (International Agency for Research on Cancer)  
Group 3 IARC components are "not classifiable as human carcinogens"*

**Reproductive toxicity** Suspected of damaging fertility or the unborn child.

**Numerical measures of toxicity**

Not determined

**Unknown Acute Toxicity** 54.5% of the mixture consists of ingredient(s) of unknown toxicity.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Toxic to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Benzyl alcohol 100-51-6	35: 3 h Anabaena variabilis mg/L EC50	460: 96 h Pimephales promelas mg/L LC50 static 10: 96 h Lepomis macrochirus mg/L LC50 static	EC50 = 50 mg/L 5 min EC50 = 63.7 mg/L 15 min EC50 = 63.7 mg/L 5 min EC50 = 71.4 mg/L 30 min	23: 48 h water flea mg/L EC50
Imidazole 288-32-4	130: 72 h Desmodesmus subspicatus mg/L EC50 82: 96 h Desmodesmus subspicatus mg/L EC50			341.5: 48 h Daphnia magna mg/L EC50
Bisphenol A 80-05-7	2 5: 96 h Pseudokirchneriella subcapitata mg/L EC50	3.6 - 5.4: 96 h Pimephales promelas mg/L LC50 flow-through 4.0 - 5.5: 96 h Pimephales promelas mg/L LC50 static 4: 96 h Oncorhynchus mykiss mg/L LC50 9 9: 96 h Brachydanio rerio mg/L LC50 static		10.2: 48 h Daphnia magna mg/L EC50 3 9: 48 h Daphnia magna mg/L EC50 9 2 - 11.4: 48 h Daphnia magna mg/L EC50 Static
N-Aminoethyl piperazine 140-31-8	495: 72 h Pseudokirchneriella subcapitata mg/L EC50	1950 - 2460: 96 h Pimephales promelas mg/L LC50 flow-through 1000: 96 h Poecilia reticulata mg/L LC50 semi-static 100: 96 h Oncorhynchus mykiss mg/L LC50 semi-static		32: 48 h Daphnia magna mg/L EC50
Nonylphenol 25154-52-3	0.41: 96 h Pseudokirchneriella subcapitata mg/L EC50 1.3: 72 h Desmodesmus subspicatus mg/L EC50	0 135: 96 h Pimephales promelas mg/L LC50 flow-through		0.14: 48 h Daphnia magna mg/L EC50 0.17 - 0.21: 48 h Daphnia magna mg/L EC50 Static 0.0874 - 0.124: 48 h Daphnia magna mg/L EC50 semi-static



Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Triethylene tetramine 112-24-3	2.5: 72 h Desmodesmus subspicatus mg/L EC50 20: 72 h Pseudokirchneriella subcapitata mg/L EC50 3.7: 96 h Pseudokirchneriella subcapitata mg/L EC50	570: 96 h Poecilia reticulata mg/L LC50 semi-static 495: 96 h Pimephales promelas mg/L LC50		31.1: 48 h Daphnia magna mg/L EC50
Benzyl dimethylamine 103-83-3		35.8 - 39.9: 96 h Pimephales promelas mg/L LC50 flow-through		

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Chemical Name	Partition Coefficient
Benzyl alcohol 100-51-8	1.1
Imidazole 288-32-4	-0.02
Bisphenol A 80-05-7	2.2
N-Aminoethyl piperazine 140-31-8	-1.48
Nonylphenol 25154-52-3	3.28
Triethylene tetramine 112-24-3	-1.4

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS**

**Waste Treatment Methods**

**Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**US EPA Waste Number**

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
2,4,6-tri(dimethylaminomethyl)phenol 90-72-2		Included in waste stream: K060		

**14. TRANSPORT INFORMATION**

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT** Not regulated

**IATA** Not regulated

**IMDG**  
**Marine Pollutant** This material may meet the definition of a marine pollutant

**15. REGULATORY INFORMATION**

**International Inventories**

**TSCA** Listed  
**DSL** Listed  
**EINECS** Listed  
**AICS** Listed

**Legend:**

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*
- AICS - Australian Inventory of Chemical Substances*

**US Federal Regulations**

**SARA 311/312 Hazard Categories**

**Acute Health Hazard** Yes  
**Chronic Health Hazard** Yes  
**Reactive Hazard** Yes

**SARA 313**

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Bisphenol A - 80-05-7	80-05-7	1-5	1.0

**US State Regulations**

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Fused Silica 60676-86-0	X	X	
Benzyl alcohol 100-51-8		X	X
Bisphenol A 80-05-7	X	X	X
N-Aminoethyl piperazine 140-31-8	X	X	X
Nonylphenol 25154-52-3		X	X
Triethylene tetramine 112-24-3	X	X	X
Stoddard solvent 8052-41-3	X	X	X
Benzylidimethylamine 103-83-3	X		

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	3	1	0	None
<b>HMIS</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical Hazards</b>	<b>Personal Protection</b>
	Not determined	Not determined	Not determined	Not determined

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**Disclaimer**

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End of Safety Data Sheet