

1. Product and Company Identification (Part A)

Company : Euclid Chemical Company
 Address : 19218 Redwood Road, Cleveland, OH 44110
 Telephone : 216.531.9222
 Emergency Phone : 800.424.9300 (Chemtrec), 1.613.996.6666 (Canada)
 Product Code : TD5323122NC
 Recommended Use : Sealant
 Product Identifier : Dural Fast Set Epoxy Gel Congry 1:1
 Pt A, Dural Fast Set Epoxy Gel 1:1
 Part A

2. Hazards Identification/Exposure Limits

Hazard classification:

Health Hazards:

Serious Eye Damage/Eye Irritation	Category 2B
Skin sensitizer	Category 1
Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1A

Unknown toxicity - health:

Acute toxicity, oral	9.98%
Acute toxicity, dermal	11%
Acute toxicity, inhalation, vapor	100%
Acute toxicity, inhalation, dust or mist	99.71%

Unknown toxicity - environment:

Acute hazards to the aquatic environment	99.18%
Chronic hazards to the aquatic environment	100%

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

Causes eye irritation.	May cause an allergic skin reaction.
May cause genetic defects.	May cause cancer.

Precautionary Statement:

Prevention: Wash thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response: 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 water. If skin irritation or rash occurs: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Specific treatment (see product label). Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: None.

3. Composition/Information On Ingredients

Substances: Not applicable.

Mixture:

Chemical Identity	CAS Number	Content in percent (%)*
Bisphenol A Polyglycidyl Ether Resin	25068-38-6	60 - 100%
Acrylate Ester	15625-89-5	7 - 13%
Crystalline Silica (Quartz)/Silica Sand	14808-60-7	5 - 10%
Titanium Dioxide	13463-67-7	0.5 - 1.5%
Stoddard Solvent (Mineral Spirits)	8052-41-3	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Procedures

Description of first aid measures

After inhalation: Move to fresh air.

After skin contact: If skin irritation occurs: Get medical advice/attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.

After eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists, get medical advice/attention.

After swallowing: Call a POISON CENTER/doctor/medical professional/if you feel unwell. Rinse mouth.

Information for doctor:

Most important symptoms and effects, both acute and delayed:

Symptoms: May cause skin and eye irritation.

Indication of any immediate medical attention and special treatment needed:

Treatment: Symptoms may be delayed.

5. Firefighting Measures

General fire hazards: No unusual fire or explosion hazards noted.

Extinguishing media:

Suitable extinguishing agents: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing agents: Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Advice for firefighters:

Special procedures: No data available.

Protective equipment: Self-contained breathing apparatus (SCBA) and full protective clothing must be worn in case of fire.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.



7. Handling and Storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood.

Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure Controls/Personal Protection

Control Parameters

Occupational exposure limits			
Chemical Identity	Type	Exposure Limit Values	Source
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m ³	U.S. ACGIH Threshold Limit Values (2011)
Crystalline Silica (Quartz)/ Silica Sand - Respirable	TWA	2.4 millions of particles per cubic foot of air	U.S. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.1 mg/m ³	U.S. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Crystalline Silica (Quartz)/ Silica Sand - Total dust.	TWA	0.3 mg/m ³	U.S. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Titanium dioxide	TWA	10 mg/m ³	U.S. ACGIH Threshold Limit Values (2011)
Titanium dioxide - Total dust.	PEL	15 mg/m ³	U.S. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Stoddard solvent (Mineral Spirits)	TWA	100 ppm	U.S. ACGIH Threshold Limit Values (2011)
	PEL	500 ppm 2,900 mg/m ³	U.S. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Crystalline Silica (Quartz)/ Silica Sand - Respirable.	TWAEV	0.10 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.1 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Titanium dioxide - Total dust.	TWA	10 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide - Respirable fraction.	TWA	3 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide	TWAEV	10 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Titanium dioxide - Total dust.	TWA	10 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)



8. Exposure Controls/Personal Protection (cont.)

Appropriate engineering controls: Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment:

General information: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection: Use suitable protective gloves if risk of skin contact.

Other: Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

9. Physical and Chemical Properties

Information on basic physical and chemical properties:

Appearance:		Explosion limits:	
Physical state:	Liquid.	Lower:	No data available.
Form:	Liquid.	Upper:	No data available.
Color:	Gray.	Vapor pressure:	No data available.
Odor:	Mild.	Relative density:	1.13
Odor threshold:	No data available.	Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
pH-value:	No data available.	Evaporation rate:	Slower than ether.
Change in condition		Solubility in/miscibility with water:	Insoluble in water.
Melting point/Melting range:	No data available.	Partition coefficient (n-octanol/water):	No data available.
Boiling point/Boiling range:	No data available.	Viscosity:	No data available.
Flash point:	> 93°C > (200°F) (Setaflash Closed Cup)		
Flammability (solid, gaseous):	No.		
Decomposition temperature:	No data available.		
Auto ignition temperature:	No data available.		

10. Stability/Reactivity

Reactivity: No data available.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: No data available.

Conditions to avoid: Avoid heat or contamination.

Incompatible materials: No data available.

Hazardous decomposition products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.



11. Toxicological Information

Information on likely routes of exposure:

Ingestion: May be ingested by accident. Ingestion may cause irritation and malaise.

Inhalation: In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

Skin Contact: May be harmful in contact with skin. Causes mild skin irritation. May cause an allergic skin reaction.

Eye Contact: Causes eye irritation.

Information on toxicological effects:

Acute toxicity (list all possible routes of exposure):

Oral:

Product: No data available.

Specified substance(s):

Bisphenol A in vivo (Rabbit, 24hrs):

Polyglycidyl Ether Resin Slightly irritating.

Dermal:

Product: ATEmix: 3,227.79 mg/kg

Acrylate Ester

in vivo (Rabbit, 24hrs):

Moderately irritating.

Inhalation:

Product: No data available.

Titanium dioxide

in vivo (Rabbit, 24-72 hrs):

Not irritating.

Repeated dose toxicity

Product: No data available.

Stoddard solvent Irritating
(Mineral spirits)

Irritating.

Skin corrosion/irritation

Product: No data available.

Respiratory or skin sensitization:

Product:

No data available.

Serious eye damage/irritation

Product: No data available.

Carcinogenicity

Product:

No data available.

IARC monographs on the evaluation of carcinogenic risks to humans:

Crystalline silica (quartz)/ Overall evaluation:
Silica sand Carcinogenic to humans.

Titanium dioxide Overall evaluation:
Possibly carcinogenic to humans.

U.S. National Toxicology Program (NTP) report on carcinogens:

Crystalline silica (Quartz)/ Known to be human carcinogen.
Silica sand

U.S. OSHA specifically regulated substances (29 CFR 1910.1001-1050):

No carcinogenic components identified.

Germ cell mutagenicity:

In vitro

Product: No data available.

In vivo:

Product: No data available.

Reproductive toxicity:

Product: No data available.

Aspiration hazard

Product: No data available.

Other effects:

No data available.

Specific target organ toxicity - single exposure:

Product: No data available.

Specific target organ toxicity - repeated exposure

Product: No data available.



12. Ecological Information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish:

Product: No data available.

Specified substance(s):

Titanium dioxide LC 50 (Mummichog (*Fundulus heteroclitus*), 96 h): > 1,000 mg/l mortality

Aquatic invertebrates:

Product: No data available.

Specified substance(s):

Titanium dioxide EC 50 (Water flea (*Daphnia magna*), 48 h): > 1,000 mg/l intoxication

Chronic hazards to the aquatic environment:

Fish:

Product: No data available.

Specified substance(s):

Titanium dioxide LC 0 (*Coregonus autumnalis migratorius* G., 30 d): 3 mg/l experimental result

Aquatic invertebrates:

Product: No data available.

Toxicity to aquatic plants:

Product: No data available.

Persistence and Degradability:

Biodegradation

Product: No data available.

BOD/COD Ratio:

Product: No data available.

Bioaccumulative Potential

Bioconcentration factor (BCF)

Product: No data available.

Partition coefficient n-octanol / water (log Kow)

Product:

No data available.

Specified substance(s):

Stoddard solvent
(Mineral Spirits)

Log Kow: 3.16 - 7.15

Mobility in soil:

No data available.

Other adverse effects:

No data available.

13. Waste Disposal Information

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated packaging: No data available.

14. Transportation Information

TDG: Not Regulated.

CFR / DOT: Not Regulated.

IMDG: Not Regulated.

15. Regulatory Information

U.S. Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):

None present or none present in regulated quantities.

U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity

Reportable Quantity

Methanol 5,000 lbs.

Hydroquinone (HQ) 100 lbs.

Butyl acetate 5,000 lbs.



15. Regulatory Information (cont.)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Immediate (acute) health hazards
- Delayed (chronic) health hazard

SARA 302 Extremely Hazardous Substance:

Chemical Identity	Reportable Quantity	Threshold Planning Quantity
Hydroquinone (HQ)	100 lbs	---

SARA 304 emergency release notification:

Chemical Identity	Reportable Quantity
Methanol	5,000 lbs.
Copper phthalocyanine	
Hydroquinone (HQ)	100 lbs.
Butyl acetate	5,000 lbs.

SARA 311/312 Hazardous Chemical:

Chemical Identity	Threshold Planning Quantity
Hydroquinone (HQ)	500 lbs.
Bisphenol A Polyglycidyl Ether Resin Acrylate Ester 500 lbs.	500 lbs.
Crystalline Silica (Quartz)/Silica Sand	500 lbs.
Titanium dioxide	500 lbs.
Stoddard solvent (Mineral Spirits)	500 lbs.

SARA 313 (TRI Reporting):

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

U.S. State Regulations:

U.S. California Proposition 65:

This product contains chemical(s) known to the state of California to cause cancer and/or to cause birth defects or other reproductive harm.

U.S. New Jersey Worker and Community Right-to-Know Act:

Chemical Identity

Crystalline silica (Quartz)/ Silica sand

U.S. Rhode Island RTK

Chemical Identity

No ingredient regulated by RI Right-to-Know Law present.

U.S. Massachusetts RTK - Substance List

Chemical Identity

Crystalline Silica (Quartz)/ Silica Sand
Hydroquinone (HQ)

Other Regulations:

When appropriately mixed with the other part, product has a VOC less water and exempt solvent of: 0 g/l

U.S. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Crystalline Silica (Quartz)/ Silica Sand

Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the inventory.



15. Regulatory Information (cont.)

Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the inventory.
U.S. TSCA Inventory:	One or more components in this product are not listed on or exempt from the inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the inventory.

16. Other Information

Further Information: No data available.

Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

1. Product and Company Identification (Part B)

Company : Euclid Chemical Company
 Address : 19218 Redwood Road, Cleveland, OH 44110
 Telephone : 216.531.9222
 Emergency Phone : 800.424.9300 (Chemtrec), 1.613.996.6666 (Canada)
 Product Code : TD5323122NC
 Recommended Use : Curative
 Product Identifier : DURAL FAST SET EPOXY GEL 1:1
 PART B

2. Hazards Identification/Exposure Limits

Hazard classification:

Health Hazards:

Acute toxicity (Oral)	Category 4	Acute toxicity, dermal	51.9%
Skin corrosion/irritation	Category 1A	Acute toxicity, inhalation, vapor	100%
Serious eye damage/eye irritation	Category 1	Acute toxicity, inhalation, dust or mist	98.2%
Skin sensitizer	Category 1		
Germ cell mutagenicity	Category 1B	Environmental Hazards:	
Carcinogenicity	Category 1A	Acute hazards to the aquatic environment	Category 2
Toxic to reproduction	Category 2	Acute hazards to the aquatic environment	64.11%
Acute toxicity, oral	27.22%		

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

Harmful if swallowed. Causes severe skin burns and eye damage.
 May cause an allergic skin reaction. May cause genetic defects.
 May cause cancer. Suspected of damaging fertility or the unborn child.
 Toxic to aquatic life.

Precautionary Statement:

Prevention: Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust or mists. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing must 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..

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTER/doctor/medical professional if you feel unwell. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Specific treatment (see product label). Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: None.



3. Composition/Information On Ingredients

Substances: Not applicable.

Mixture:

Chemical Identity	CAS Number	Content in percent (%)*
1,3-Cyclohexanedimethanamine	2579-20-6	15 - 40%
4-Nonylphenol	84852-15-3	15 - 40%
Bisphenol A	80-05-7	15 - 40%
Crystalline Silica (Quartz)/Silica Sand	14808-60-7	15 - 40%
Tris(dimethylaminomethyl)phenol	90-72-2	1 - 5%
Benzyl alcohol	100-51-6	1 - 5%
1,2-Cyclohexanediamine	694-83-7	1 - 5%
Stoddard solvent (Mineral Spirits)	8052-41-3	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Procedures

Description of first aid measures

After inhalation: Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.

After skin contact: Call a physician or poison control center immediately. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.

After eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

After swallowing: Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center.

Information for doctor:

Most important symptoms and effects, both acute and delayed:

Symptoms: Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Extreme irritation of eyes and mucous membranes, including burning and tearing.

Indication of any immediate medical attention and special treatment needed:

Treatment: Symptoms may be delayed.

5. Firefighting Measures

General fire hazards: No unusual fire or explosion hazards noted.

Extinguishing media:

Suitable extinguishing agents: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing agents: Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Advice for firefighters:

Special procedures: No data available.

Protective equipment: Self-contained breathing apparatus (SCBA) and full protective clothing must be worn in case of fire.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-



6. Accidental Release Measures

combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and Storage

Precautions for safe handling: Do not taste or swallow. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not get in eyes. Do not get in eyes, on skin, on clothing. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure Controls/Personal Protection

Control Parameters

Occupational exposure limits			
Chemical Identity	Type	Exposure Limit Values	Source
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m ³	U.S. ACGIH Threshold Limit Values (2011)
Crystalline Silica (Quartz)/ Silica Sand - Respirable	TWA	2.4 millions of particles per cubic foot of air	U.S. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.1 mg/m ³	U.S. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Crystalline Silica (Quartz)/ Silica Sand - Total dust.	TWA	0.3 mg/m ³	U.S. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Stoddard solvent (Mineral Spirits)	TWA	100 ppm	U.S. ACGIH Threshold Limit Values (2011)
	PEL	500 ppm 2,900 mg/m ³	U.S. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Crystalline Silica (Quartz)/ Silica sand - respirable fraction.	TWA	0.025 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Crystalline Silica (Quartz)/ Silica sand - respirable.	TWAEV	0.10 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Crystalline Silica (Quartz)/ Silica sand - respirable dust.	TWA	0.1 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

Appropriate engineering controls: Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

8. Exposure Controls/Personal Protection (cont.)

Individual protection measures, such as personal protective equipment:

General information: Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection: Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection: Use suitable protective gloves if risk of skin contact.

Other: Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Observe good industrial hygiene practices. Do not eat, drink or smoke when using the product. Wash hands after handling. Wash hands before breaks and immediately after handling the product. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

9. Physical and Chemical Properties

Information on basic physical and chemical properties:

Appearance:

Physical state: Liquid.
Form: Liquid.
Color: Gray.

Odor: Mild pungent.

Odor threshold: No data available.

pH-value: No data available.

Change in condition

Melting point/Melting range: No data available.
Boiling point/Boiling range: No data available.

Flash point: > 93°C > (200°F)
(Setaflash Closed Cup)

Flammability (solid, gaseous): No.

Decomposition temperature: No data available.

Auto ignition temperature: No data available.

Explosion limits:

Lower: No data available.
Upper: No data available.

Vapor pressure: No data available.

Relative density: 1.20

Vapor density: Vapors are heavier than air and may travel along the floor and in the bottom of containers.

Evaporation rate: Slower than ether.

Solubility in/miscibility with water: Practically Insoluble.

Partition coefficient (n-octanol/water): No data available.

Viscosity: No data available.

10. Stability/Reactivity

Reactivity: No data available.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: No data available.

Conditions to avoid: Avoid heat or contamination.

Incompatible materials: No data available.

Hazardous decomposition products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.



11. Toxicological Information

Information on likely routes of exposure:

Ingestion: Harmful if swallowed.

Inhalation: In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

Skin Contact: May be harmful in contact with skin. Causes severe skin burns. May cause an allergic skin reaction.

Eye Contact: Causes serious eye damage.

Information on toxicological effects:

Acute toxicity (list all possible routes of exposure):

Oral:			
Product:	ATEmix: 1,417.21 mg/kg	Specified substance(s): 4-Nonylphenol	in vivo (Rabbit, 24 - 72 hrs): Corrosive
Dermal:			
Product:	ATEmix: 2,291.07 mg/kg	Bisphenol A	in vivo (Rabbit, 24 hrs): Not classified as an Irritant
Inhalation:			
Product:	No data available.	Tris(dimethylaminomethyl) phenol	in vivo (Rabbit, 3 d): Corrosive
Repeated dose toxicity			
Product:	No data available.	Benzyl alcohol	in vivo (Rabbit, 1 - 72 hrs): Irritating
Skin corrosion/irritation			
Product:	No data available.	Stoddard solvent Irritating (Mineral spirits)	Irritating.
Serious eye damage/irritation			
Product:	No data available.	Carcinogenicity Product:	No data available.
Respiratory or skin sensitization:			
Product:	No data available.		

IARC monographs on the evaluation of carcinogenic risks to humans:

Crystalline silica (quartz)/ Silica sand Overall evaluation:
Carcinogenic to humans.

U.S. National Toxicology Program (NTP) report on carcinogens:

Crystalline silica (Quartz)/ Silica sand Known to be human carcinogen.

U.S. OSHA specifically regulated substances (29 CFR 1910.1001-1050):

No carcinogenic components identified.

Germ cell mutagenicity:

In vitro

Product: No data available.

In vivo:

Product: No data available.

Reproductive toxicity:

Product: Suspected of damaging fertility or the unborn child.

Aspiration hazard

Product: No data available.

Other effects:

No data available.

Specific target organ toxicity - single exposure:

Product: No data available.

Specific target organ toxicity - repeated exposure

Product: No data available.

12. Ecological Information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish:

Product: No data available.

Specified substance(s):

4-Nonylphenol	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 0.13825 mg/l Mortality
Bisphenol A	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 4 - 5.5 mg/l Mortality
Benzyl alcohol	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 460 mg/l Mortality

Aquatic invertebrates:

Product: No data available.

Specified substance(s):

4-Nonylphenol	LC 50 (Amphipod (Leptocheirus plumulosus), 144 h): +/- 0.05 mg/l Mortality
	EC 50 (Clam (Mulinia lateralis), 24 h): +/- 0.05 mg/l Mortality
	LC 50 (Marsh grass shrimp (Palaemonetes vulgaris), 72 h): > 0.05 - 0.1 mg/l Mortality
	LC 50 (Amphipod (Leptocheirus plumulosus), 72 h): > 0.05 - 0.1 mg/l Mortality
	LC 50 (American lobster (Homarus americanus), 48 h): > 0.1 - 0.15 mg/l Mortality
Bisphenol A	LC 50 (Hydra (Hydra vulgaris), 24 h): 10.9 - 14 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish:

Product: No data available.

Specified substance(s):

4-Nonylphenol	LOAEL (Lepomis macrochirus, 28 d): 0.126 mg/l experimental result
Bisphenol A	NOAEL (Oncorhynchus mykiss, 28 d): 3.64 mg/l experimental result

Aquatic invertebrates:

Product: No data available.

Toxicity to aquatic plants:

Product: No data available.

Persistence and Degradability:

Biodegradation

Product: No data available.

BOD/COD Ratio:

Product: No data available.

Bioaccumulative Potential

Bioconcentration factor (BCF)

Product: No data available.

Partition coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Stoddard solvent	
(Mineral Spirits)	Log Kow: 3.16 - 7.15

Specified substance(s):

4-Nonylphenol	Fathead minnow (Pimephales promelas), Bioconcentration Factor (BCF): 498 (Flow through)
Bisphenol A	Rainbow trout, donaldson trout (Oncorhynchus mykiss), Bioconcentration Factor (BCF): 10.8 (Flow through)

Mobility in soil:

No data available.

Other adverse effects:

Toxic to aquatic organisms.

13. Waste Disposal Information

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated packaging: No data available.



14. Transportation Information

TDG: Not Regulated.

CFR / DOT: Not Regulated.

IMDG: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Nonylphenol), 9, PG III, MARINE POLLUTANT.

Further information: The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

15. Regulatory Information

U.S. Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):

4-Nonylphenol	De minimis concentration: 1.0% One-Time Export Notification only.
**	De minimis concentration: 1.0% One-Time Export Notification only.

U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity	Reportable Quantity
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Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Immediate (Acute) Health Hazards
- Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance:

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification:

Chemical Identity	Reportable Quantity
Bisphenol A	

SARA 311/312 Hazardous Chemical:

Chemical Identity	Threshold Planning Quantity
1,3-Cyclohexanedimethanamine	500 lbs.
4-Nonylphenol	500 lbs.
Bisphenol A	500 lbs.
Crystalline Silica (Quartz)/Silica sand	500 lbs.
Tris(dimethylaminomethyl) phenol	500 lbs.
Benzyl alcohol	500 lbs.
1,2-Cyclohexanediamine	500 lbs.
Stoddard solvent (Mineral Spirits)	500 lbs.

SARA 313 (TRI Reporting):

Bisphenol A

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

U.S. State Regulations:

U.S. California Proposition 65:

This product contains chemical(s) known to the state of California to cause cancer and/or to cause birth defects or other reproductive harm.



15. Regulatory Information (cont.)

U.S. New Jersey Worker and Community

Right-to-Know Act:

Chemical Identity

Bisphenol A
Crystalline Silica (Quartz)/ Silica sand

U.S. Massachusetts RTK - Substance List

Chemical Identity

4-Nonylphenol
Bisphenol A
Crystalline Silica (Quartz)/ Silica sand
Benzyl alcohol

U.S. Pennsylvania RTK - Hazardous Substances

Chemical Identity

4-Nonylphenol
Bisphenol A
Crystalline Silica (Quartz)/ Silica sand
Benzyl alcohol

U.S. Rhode Island RTK

Chemical Identity

Bisphenol A

Other Regulations:

When appropriately mixed with the other part, product has a VOC less water and exempt solvent of: 0 g/l

Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the inventory.
U.S. TSCA Inventory:	One or more components in this product are not listed on or exempt from the inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the inventory.

16. Other Information

Further Information: No data available.

Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.