SDS Revision Date:

Cast-Coat inc.

04/16/2015

1. Identification				
1.1. Product identifier				
Product Identity	DeltaBOND 155 A			
Alternate Names	DeltaBOND 155 A			
1.2. Relevant identified uses of the substance or	mixture and uses advised against			
Intended use See Technical Data Sheet.				
Application Method	lication Method See Technical Data Sheet.			
1.3. Details of the supplier of the safety data shee	t			
Company Name	Cast-Coat, Inc.			
	354 West Street			
	W. Bridgewater, MA 02379			
Emergency				
CHEMTREC 24 hour Emergency Telephone No.	1-800-424-9300 or 1-703-527-3887			
Customer Service: Cast-Coat, Inc.	1-800-527-4502 or 1-508-587-4502			

# 2. Hazard(s) identification

## 2.1. Classification of the substance or mixture

Skin Irrit. 2;H315	Causes skin irritation.
Eye Irrit. 2;H319	Causes serious eye irritation.
Skin Sens. 1;H317	May cause an allergic skin reaction.
Muta. 2;H341	Suspected of causing genetic defects.
Carc. 2;H351	Suspected of causing cancer.
Aquatic Chronic 2;H411	Toxic to aquatic life with long lasting effects.

## 2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



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# Warning

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

## [Prevention]:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P264 Wash thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

## [Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P308+313 IF exposed or concerned: Get medical advice / attention.

P321 Specific treatment (see information on this label).

P333+313 If skin irritation or a rash occurs: Get medical advice / attention.

P337+313 If eye irritation persists: Get medical advice / attention.

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

## [Storage]:

P405 Store locked up.

## [Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

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# 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Aluminum oxide CAS Number: 0001344-28-1	50 - 75	Not Classified	[1][2]
Diglycidyl ether of bisphenol A CAS Number: 0025068-38-6	25 - 50	Eye Irrit. 2;H319 Skin Irrit. 2;H315 Skin Sens. 1;H317 Aquatic Chronic 2;H411	[1]
Oxirane, (butoxymethyl)- CAS Number: 0002426-08-6	1.0 - 10	Flam. Liq. 3;H226 Carc. 2;H351 Muta. 2;H341 Acute Tox. 4;H332 Acute Tox. 4;H302 STOT SE 3;H335 Skin Sens. 1;H317 Aquatic Chronic 3;H412	[1][2]
TALC (Mg3H2(SiO3)4) CAS Number: 0014807-96-6	1.0 - 10	Not Classified	[1][2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

# 4. First aid measures

#### 4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Immediately flush eyes with water for at least 30 minutes. Seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	Rinse mouth with water. If conscious, give small quantities of water to drink. Do not induce vomiting. If vomiting occurs, keep victim's head below hips to prevent vomit from entering lungs. Seek medical attention.
4.2. Most important syn	nptoms and effects, both acute and delayed
Overview	No specific symptom data available.

Good practice requires that gross amounts of any chemical be removed from the skin as soon as practical, especially before eating or smoking. See section 2 for further details.

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EyesCauses serious eye irritation.SkinMay cause an allergic skin reaction. Causes skin irritation.

# 5. Fire-fighting measures

## 5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO<sub>2</sub>, powder, water spray.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Carbon monoxide, carbon dioxide.

Avoid breathing dust / fume / gas / mist / vapors / spray.

#### 5.3. Advice for fire-fighters

At higher temperature vapors can cause pressure buildup in sealed containers. Use water to cool containers exposed to fire. Self-contained respirator equipment and full protective clothing required when smoke or fumes are generated. Electrical grounding not recommended.

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# 6. Accidental release measures

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

Put on appropriate personal protective equipment (see section 8).

#### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

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

Construct a dike to prevent from entering sewers, rivers and waterways. Soak up residue with absorbent material and shovel into non leaking containers.

# 7. Handling and storage

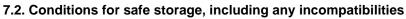
## 7.1. Precautions for safe handling

Good practice requires that gross amounts of any chemical be removed from the skin as soon as practical, especially before eating or smoking. Wear splash proof chemical goggles, impervious gloves and protective clothing to prevent skin contact. Emergency eye wash stations should be readily accessible.

See section 2 for further details. - [Prevention]:

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Handle containers carefully to prevent damage and spillage.

Incompatible materials: Strong oxidizing agents, strong lewis or mineral acids, strong mineral and organic bases. Store in a cool, dry location in tightly sealed containers. Keep away from open flame and high temperatures. Do not pressurize containers to empty them.

See section 2 for further details. - [Storage]:

#### 7.3. Specific end use(s)

Cast-Coat inc.

No data available.

# 8. Exposure controls and personal protection

## 8.1. Control parameters

#### Exposure

CAS No.	Ingredient	Source	Value
0001344-28-1 Aluminum oxide		OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
	ACGIH	No Established Limit	
		NIOSH	no established RELs
		Supplier	No Established Limit
0002426-08-6	Oxirane, (butoxymethyl)-	OSHA	TWA 50 ppm (270 mg/m3)
		ACGIH	TWA: 3 ppmSkin, S, R, Revised 2005,
		NIOSH	C 5.6 ppm (30 mg/m3) [15-minute]
		Supplier	No Established Limit
0014807-96-6 TALC (Mg3H2(SiO3)4)		OSHA	TWA 20 mppcf
		ACGIH	Containing asbestos fibres TWA: 0.1 f/cc (K) A1, 1Containing no asbestos fibres TWA:2 mg/m3 (E) (respirable)
		NIOSH	TWA 2 mg/m3 (resp)
		Supplier	No Established Limit
0025068-38-6	Diglycidyl ether of bisphenol A	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

## **Carcinogen Data**

CAS No.	Ingredient	Source	e Value	
0001344-28-1	Aluminum oxide	OSHA	Select Carcinogen: No	
		NTP	Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;	
0002426-08-6	Oxirane, (butoxymethyl)-	OSHA	Select Carcinogen: No	
		NTP	Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;	



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0014807-96-6	TALC (Mg3H2(SiO3)4)	OSHA Select Carcinogen: No		
		NTP Known: No; Suspected: No		
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;	
0025068-38-6	Diglycidyl ether of bisphenol A	OSHA	Select Carcinogen: No	
		NTP	Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;	

8.2. Exposure controls	
Respiratory	Wear NIOSH approved air purifying respirator in the absence of ventilation.
Eyes	Wear safety goggles or safety glasses with side shields. Emergency eye wash stations should be readily accessible.
Skin	Wear chemical resistant impervious gloves and protective clothing such as an apron to prevent skin contact.
Engineering Controls	Provide effective mechanical exhaust. Wear NIOSH approved respirator suitable for organic vapors in the absence of ventilation.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.
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See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Blue Liquid
	•
Odor	Mild Aromatic Odor
Odor threshold	Not Measured
рН	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	Not Measured
Flash Point	> 100 °C
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured
	Upper Explosive Limit: Not Measured
Vapor pressure (Pa)	Upper Explosive Limit: Not Measured < 1.00 mmHg at 25 °C
Vapor pressure (Pa) Vapor Density	
	< 1.00 mmHg at 25 °C
Vapor Density	< 1.00 mmHg at 25 °C Not Measured
Vapor Density Specific Gravity	< 1.00 mmHg at 25 °C Not Measured 2.0 - 2.2
Vapor Density Specific Gravity Solubility in Water	< 1.00 mmHg at 25 °C Not Measured 2.0 - 2.2 Insoluble
Vapor Density Specific Gravity Solubility in Water Partition coefficient n-octanol/water (Log Kow)	< 1.00 mmHg at 25 °C Not Measured 2.0 - 2.2 Insoluble Not Measured
Vapor Density Specific Gravity Solubility in Water Partition coefficient n-octanol/water (Log Kow) Auto-ignition temperature	< 1.00 mmHg at 25 °C Not Measured 2.0 - 2.2 Insoluble Not Measured Not Measured
Vapor Density Specific Gravity Solubility in Water Partition coefficient n-octanol/water (Log Kow) Auto-ignition temperature Decomposition temperature	< 1.00 mmHg at 25 °C Not Measured 2.0 - 2.2 Insoluble Not Measured Not Measured Not Measured

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# 9.2. Other information

No other relevant information.

# 10. Stability and reactivity

#### 10.1. Reactivity

Hazardous polymerization will not occur.

#### 10.2. Chemical stability

This product requires another product to react at room temperature. Mix and use product in accordance with directions for safety. Excessive heat and fume generation can occur if improperly handled. Not sensitive to mechanical impact.

#### **10.3.** Possibility of hazardous reactions

No data available.

#### 10.4. Conditions to avoid

Avoid strong oxidizing agents, strong lewis or mineral acids, strong mineral and organic bases.

#### 10.5. Incompatible materials

Strong oxidizing agents, strong lewis or mineral acids, strong mineral and organic bases.

#### **10.6.** Hazardous decomposition products

Carbon monoxide, carbon dioxide.

# 11. Toxicological information

#### Acute toxicity

Based on the properties of the epoxy constituents and considering toxicological data on similar preparations this preparation may be an irritant and a skin and respiratory sensitiser. Low molecular weight epoxy constituents are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and sensitisation, possibly with cross-sensitisation to other epoxies. Skin contact with the preparation and exposure to spray mist and vapor should be avoided.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr	Inhalation Gas LD50, ppm
Aluminum oxide - (1344-28-1)	5,000.00, Rat -	No data	No data	No data	No data
	Category: 5	available	available	available	available
Diglycidyl ether of bisphenol A - (25068-38-6)	2,000.00, Rat - Category: 4	2,000.00, Rabbit - Category: 4	No data available	No data available	No data available
Oxirane, (butoxymethyl) (2426-08-6)	No data	No data	No data	No data	No data
	available	available	available	available	available
TALC (Mg3H2(SiO3)4) - (14807-96-6)	1660.00, Rat -	No data	No data	No data	No data
	Category: 4	available	available	available	available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).



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Classification	Category	Hazard Description	
Acute toxicity (oral)		Not Applicable	
Acute toxicity (dermal)		Not Applicable	
Acute toxicity (inhalation)		Not Applicable	
Skin corrosion/irritation	2	Causes skin irritation.	
Serious eye damage/irritation	2	Causes serious eye irritation.	
Respiratory sensitization		Not Applicable	
Skin sensitization	1	May cause an allergic skin reaction.	
Germ cell mutagenicity	2	Suspected of causing genetic defects.	
Carcinogenicity	2	Suspected of causing cancer.	
Reproductive toxicity		Not Applicable	
STOT-single exposure		Not Applicable	
STOT-repeated exposure		Not Applicable	
Aspiration hazard		Not Applicable	

# **12. Ecological information**

## 12.1. Toxicity

Toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

## Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Aluminum oxide - (1344-28-1)	Not Available	Not Available	Not Available
Diglycidyl ether of bisphenol A - (25068-38-6)	3.10, Pimephales promelas	1.40, Daphnia magna	Not Available
Oxirane, (butoxymethyl) (2426-08-6)	Not Available	3.90, Daphnia magna	Not Available
TALC (Mg3H2(SiO3)4) - (14807-96-6)	Not Available	Not Available	Not Available

## 12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

## 12.4. Mobility in soil

No data available.

# 12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

## 12.6. Other adverse effects

No data available.

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# 13. Disposal considerations

## 13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

# 14. Transport information

	DOT	IMO / IMDG	ICAO / IATA (within US only)
14.1. UN number	Not Applicable	UN 3082	Not Applicable
14.2. UN proper shipping name	Not Regulated	Environmentally Hazardous Substance, Liquid, N.O.S. (Diglycidyl ether of bisphenol A)	Not Regulated
14.3. Transport hazard class(es)	Not Applicable	9	Not Applicable
14.4. Packing group	Not Applicable	III	Not Applicable
44 E E	Caller and a		

14.5. Environmental hazards

IMDG

Marine Pollutant: Yes (Diglycidyl ether of bisphenol A)

14.6. Special precautions for user

No further information

• The classification as a marine pollutant is the only shipping hazard. Additional packaging, labeling, marking, documentation, etc. may be required when shipping internationally. Please refer to destination country regulations.

# 15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.	
Toxic Substance Control Act ( TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.	
WHMIS Classification	D2A	
US EPA Tier II Hazards	Fire: No	

Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): Yes

Delayed (Chronic): Yes

## EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

## **EPCRA 302 Extremely Hazardous:**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

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## EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

### Proposition 65 - Carcinogens (>0.0%):

TALC (Mg3H2(SiO3)4)

#### **Proposition 65 - Developmental Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%): To the best of our knowledge, there are no chemicals at levels which require reporting under this statute. Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

## New Jersey RTK Substances (>1%):

Aluminum oxide

Oxirane, (butoxymethyl)-

TALC (Mg3H2(SiO3)4)

#### Pennsylvania RTK Substances (>1%):

Aluminum oxide

Oxirane, (butoxymethyl)-

TALC (Mg3H2(SiO3)4)

# 16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H226 Flammable liquid and vapor.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

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# This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

All information appearing herein is based upon data obtained from the manufacturer and / or recognized technical sources. While the information is believed to be accurate, Cast-Coat makes no representations as to its accuracy or sufficiency. Conditions of use are beyond the control of Cast-Coat and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their purposes. Cast-Coat, Inc. assumes no responsibility for injury from the use of the product described herein.

End of Document

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1. Identification			
1.1. Product identifier			
1.1. Product identifier			
Product Identity	DeltaBOND 155 B		
Alternate Names	DeltaBOND 155 B		
1.2. Relevant identified uses of the substance or mixture and uses advised against			
Intended use	See Technical Data Sheet.		
Application Method	See Technical Data Sheet.		
1.3. Details of the supplier of the safety data sheet			
Company Name	Cast-Coat, Inc.		
	354 West Street		
	W. Bridgewater, MA 02379		
Emergency			
CHEMTREC 24 hour Emergency Telephone No.	1-800-424-9300 or 1-703-527-3887		

## Customer Service: Cast-Coat, Inc.

1-(800)-527-4502 or 1-(508)-587-4502

# 2. Hazard(s) identification

## 2.1. Classification of the substance or mixture

Acute Tox. 4;H302	Harmful if swallowed.
Skin Corr. 1B;H314	Causes severe skin burns and eye damage.
Eye Dam. 1;H318	Causes serious eye damage.
Skin Sens. 1;H317	May cause an allergic skin reaction.
Repr. 2;H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
Aquatic Chronic 1;H410	Very toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.





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# Danger

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H361Fd Suspected of damaging fertility. Suspected of damaging the unborn child.

H410 Very toxic to aquatic life with long lasting effects.

# [Prevention]:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

# [Response]:

P301+312 IF SWALLOWED: Call a POISON CENTER or doctor / physician if you feel unwell.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P308+313 IF exposed or concerned: Get medical advice / attention.

P310 Immediately call a POISON CENTER or doctor / physician.

P321 Specific treatment (see information on this label).

P330 Rinse mouth.

P331 Do NOT induce vomiting.

P333+313 If skin irritation or a rash occurs: Get medical advice / attention.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

## [Storage]:

P405 Store locked up.

# [Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

Cast-Coat inc.

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# 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Aluminum oxide CAS Number: 0001344-28-1	50 - 75	Not Classified	[1][2]
Phenol, 4-nonyl-, branched CAS Number: 0084852-15-3	25 - 50	Repr. 2;H361fd Acute Tox. 4;H302 Skin Corr. 1B;H314 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	[1]
2-piperazin-1-ethylamine CAS Number: 0000140-31-8	1.0 - 10	Acute Tox. 4;H312 Acute Tox. 4;H302 Skin Corr. 1B;H314 Skin Sens. 1;H317 Aquatic Chronic 3;H412	[1]
Aluminum (Al) CAS Number: 0007429-90-5	1.0 - 10	Pyr. Sol. 1;H250 WaterReact. 2;H261	[1][2]
Amorphous fumed silica CAS Number: 0112945-52-5	1.0 - 10	Combustible Dust	[1]
TALC (Mg3H2(SiO3)4) CAS Number: 0014807-96-6	1.0 - 10	Not Classified	[1][2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

# 4. First aid measures

#### 4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	Rinse mouth with water. If conscious, give small quantities of water to drink. Do not induce vomiting. If vomiting occurs, keep victim's head below hips to prevent vomit from entering lungs. Seek medical attention.

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### 4.2. Most important symptoms and effects, both acute and delayed

Overview	<ul> <li>Eye Contact: Corrosive to the eyes and may cause severe damage, including blindness. Vapors may be irritating.</li> <li>Skin Contact: Corrosive to the skin. May cause skin sensitization. May be toxic if absorbed through the skin.</li> <li>Inhalation: Vapors / mists may be corrosive to the upper respiratory tract. Repeated or prolonged exposure can result in lung damage.</li> <li>Ingestion: Not expected to be a relevant route of exposure, however, corrosive and may cause severe and permanent damage to the mouth, throat and stomach.</li> <li>Aggravated Medical Conditions: Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product. Pre-existing respiratory and skin allergies may be increased from exposure to this product. See section 2 for further details.</li> </ul>
Eyes	Causes serious eye damage.
Skin	May cause an allergic skin reaction. Causes severe skin burns and eye damage.
Ingestion	Harmful if swallowed.

# 5. Fire-fighting measures

## 5.1. Extinguishing media

Carbon dioxide (CO2), foam, dry chemical, water spray. Water or fog may cause frothing which can be violent, especially if sprayed into containers of hot or burning liquid.

#### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Carbon monoxide, Carbon dioxide.

Avoid breathing dust / fume / gas / mist / vapors / spray.

## 5.3. Advice for fire-fighters

Do not enter confined space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots). Use self contained, positive pressure breathing apparatus.

Delayed lung damage (pulmonary edema) can be experienced after exposure to combustion products, sometimes hours after the exposure. Nitrogen oxides and nitrogen containing organic compounds may be released upon combustion.

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# 6. Accidental release measures

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

Put on appropriate personal protective equipment (see section 8).

#### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Cast-Coat inc.

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

Construct a dike to prevent from entering sewers, rivers and waterways. Soak up residue with absorbent material and shovel into non leaking containers.

# 7. Handling and storage

## 7.1. Precautions for safe handling

Good practice requires that gross amounts of any chemical be removed from the skin as soon as practical, especially before eating or smoking. Wear splash proof chemical goggles, impervious gloves and protective clothing to prevent skin contact. Emergency eye wash stations should be readily accessible.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry location in tightly sealed containers.

Incompatible materials: No data available.

See section 2 for further details. - [Storage]:

#### 7.3. Specific end use(s)

No data available.

# 8. Exposure controls and personal protection

## 8.1. Control parameters

#### Exposure

CAS No.	Ingredient	Source	Value
0000140-31-8	2-piperazin-1-ethylamine	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0001344-28-1	Aluminum oxide	OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	No Established Limit
		NIOSH	no established RELs
		Supplier	No Established Limit
0007429-90-5	Aluminum (Al)	OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	TWA: 1.o mg/m3Revised 2008,
		NIOSH	TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp)
		Supplier	No Established Limit

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0014807-96-6	TALC (Mg3H2(SiO3)4)	OSHA	TWA 20 mppcf
		ACGIH	Containing asbestos fibres TWA: 0.1 f/cc (K) A1, 1Containing no asbestos fibres TWA:2 mg/m3 (E) (respirable)
		NIOSH	TWA 2 mg/m3 (resp)
		Supplier	No Established Limit
0084852-15-3	Phenol, 4-nonyl-, branched	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0112945-52-5	Amorphous fumed silica	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

# Carcinogen Data

CAS No.	Ingredient	Source	Value
0000140-31-8	2-piperazin-1-ethylamine	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0001344-28-1	Aluminum oxide	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007429-90-5	Aluminum (Al)	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0014807-96-6	TALC (Mg3H2(SiO3)4)	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No;
0084852-15-3	Phenol, 4-nonyl-, branched	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0112945-52-5	Amorphous fumed silica	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

# 8.2. Exposure controls

Respiratory	Use NIOSH approved respirator suitable for organic vapors.
Eyes	Wear splash proof chemical goggles.
Skin	Wear impervious gloves and protective clothing to prevent skin contact.

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Engineering Controls	Provide effective mechanical exhaust. Wear NIOSH approved air purifying respirator in the absence of ventilation.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or

using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

# 9. Physical and chemical properties

Appearance Odor Odor threshold pH Melting point / freezing point Initial boiling point and boiling range Flash Point Evaporation rate (Ether = 1) Flammability (solid, gas) Upper/lower flammability or explosive limits

Vapor pressure (Pa)
Vapor Density
Specific Gravity
Solubility in Water
Partition coefficient n-octanol/water (Log Kow)
Auto-ignition temperature
Decomposition temperature
Viscosity (cSt)
VOC Content
9.2. Other information
No other relevant information.

Grey Viscous Liquid Amine odor Not determined Not Measured Not Measured Not Measured >100C Not Measured Not Applicable Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured <1.00 mmHg@25C Not Measured 1.9-2.1 Insoluble Not Measured Not Measured Not Measured Not Measured <7% by weight.

# 10. Stability and reactivity

## 10.1. Reactivity

Hazardous Polymerization will not occur. **10.2. Chemical stability**Stable under normal circumstances. **10.3. Possibility of hazardous reactions**No data available.

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## 10.4. Conditions to avoid

Avoid strong oxidizing agents, strong lewis or mineral acids, strong mineral and organic bases.

## 10.5. Incompatible materials

No data available.

## **10.6. Hazardous decomposition products**

Carbon monoxide, Carbon dioxide.

# **11. Toxicological information**

#### Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Aluminum oxide - (1344-28-1)	5,000.00, Rat -	No data	No data	No data	No data
	Category: 5	available	available	available	available
Phenol, 4-nonyl-, branched - (84852-15-3)	No data	No data	No data	No data	No data
	available	available	available	available	available
2-piperazin-1-ethylamine - (140-31-8)	2,107.50, Rat -	866.80, Rabbit -	No data	No data	No data
	Category: 5	Category: 3	available	available	available
Aluminum (Al) - (7429-90-5)	No data	No data	No data	No data	No data
	available	available	available	available	available
Amorphous fumed silica - (112945-52-5)	3,160.00, Rat -	No data	No data	No data	No data
	Category: 5	available	available	available	available
TALC (Mg3H2(SiO3)4) - (14807-96-6)	No data	No data	No data	No data	No data
	available	available	available	available	available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description	
Acute toxicity (oral)	4	Harmful if swallowed.	
Acute toxicity (dermal)		Not Applicable	
Acute toxicity (inhalation)		Not Applicable	
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage.	
Serious eye damage/irritation	1	Causes serious eye damage.	
Respiratory sensitization		Not Applicable	
Skin sensitization	1	May cause an allergic skin reaction.	
Germ cell mutagenicity		Not Applicable	
Carcinogenicity		Not Applicable	
Reproductive toxicity		Suspected of damaging fertility. Suspected of damaging the unborn child.	

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STOT-single exposure	 Not Applicable
STOT-repeated exposure	 Not Applicable
Aspiration hazard	 Not Applicable

# 12. Ecological information

## 12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

## **Aquatic Ecotoxicity**

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Aluminum oxide - (1344-28-1)	Not Available	Not Available	Not Available
Phenol, 4-nonyl-, branched - (84852-15-3)	0.128, fathead minnow	0.0563, Algae	Not Available
2-piperazin-1-ethylamine - (140-31-8)	100.00, Oncorhynchus mykiss	32.00, Daphnia magna	495.00 (72 hr), Pseudokirchneriella subcapitata
Aluminum (AI) - (7429-90-5)	Not Available	Not Available	Not Available
Amorphous fumed silica - (112945-52-5)	Not Available	Not Available	Not Available
TALC (Mg3H2(SiO3)4) - (14807-96-6)	Not Available	Not Available	Not Available

## 12.2. Persistence and degradability

There is no data available on the preparation itself.

## 12.3. Bioaccumulative potential

Not Measured

## 12.4. Mobility in soil

No data available.

## 12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

## 12.6. Other adverse effects

No data available.

# **13. Disposal considerations**

## 13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

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# 14. Transport information

	DOT	IMO / IMDG	ICAO / IATA		
14.1. UN number	UN3267	UN3267	UN3267		
14.2. UN proper shipping name	Corrosive Liquid, Basic, Organic, N.O.S., (Nonyl Phenol, Aminoethylpiperazine)	Corrosive Liquid, Basic, Organic, N.O.S., (Nonyl Phenol, Aminoethylpiperazine)	Corrosive Liquid, Basic, Organic, N.O.S., (Nonyl Phenol, Aminoethylpiperazine)		
14.3. Transport hazard class(es)	8	8	8		
14.4. Packing group	III	III	III		
14.5. Environmental hazards					
IMDG	Marine Pollutant: Yes ( Phenol, 4-nonyl-, branched )				
14.6. Special precautions for user					
	No further information				

No further information

# 15. Regulatory information

Regulatory OverviewThe regulatory data in Section 15 is not intended to be all-inclusive, only selected<br/>regulations are represented.Toxic Substance<br/>Control Act (TSCA)All components of this material are either listed or exempt from listing on the TSCA<br/>Inventory.WHMIS Classification<br/>US EPA Tier II HazardsD2A EFire: No<br/>Sudden Release of Pressure: No<br/>Reactive: No

Reactive: N

Immediate (Acute): Yes

Delayed (Chronic): No

#### EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

## EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

## **EPCRA 313 Toxic Chemicals:**

Aluminum (AI)

## Proposition 65 - Carcinogens (>0.0%):

TALC (Mg3H2(SiO3)4)

## Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

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## Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

## Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

## New Jersey RTK Substances (>1%):

2-piperazin-1-ethylamine

Aluminum (Al)

Aluminum oxide

TALC (Mg3H2(SiO3)4)

## Pennsylvania RTK Substances (>1%):

2-piperazin-1-ethylamine

Aluminum (Al)

Aluminum oxide

TALC (Mg3H2(SiO3)4)

# **16. Other information**

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H250 Catches fire spontaneously if exposed to air.

H261 In contact with water releases flammable gases.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

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All information appearing herein is based upon data obtained from the manufacturer and / or recognized technical sources. While the information is believed to be accurate, Cast-Coat makes no representations as to its accuracy or sufficiency. Conditions of use are beyond the control of Cast-Coat and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their purposes. Cast-Coat, Inc. assumes no responsibility for injury from the use of the product described herein.

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