



# Material Safety Data Sheet

Issuing Date December 30, 2009

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Revision Number 05

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** AC-@275 Class B Mixed  
**Product Code(s)** AC-275 Class B-1/2, B-2, and B-6 Mixed  
**UN-No** Not regulated  
**Recommended Use** Sealant.  
**Company** Advanced Chemistry & Technology, Inc.  
7341 Anaconda Avenue  
Garden Grove, CA 92841  
**Company Emergency Phone Number** 714-373-2837 (8 AM to 5 PM Pacific)  
**Emergency Telephone Number** Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

### CAUTION!

#### Emergency Overview

May cause skin, eye, and respiratory tract irritation

**Appearance** Gray

**Physical State** Paste/Gel

**Odor** Sulphurous

**OSHA Regulatory Status** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Potential Health Effects

**Principle Routes of Exposure** Skin contact, Inhalation, Eye contact

### Acute Toxicity

#### Eyes

Contact with eyes may cause irritation.

#### Skin

May cause irritation.

#### Inhalation

May cause irritation of respiratory tract.

#### Ingestion

Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

### Chronic Effects

Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

### Main Symptoms

Redness.

### Aggravated Medical Conditions

Skin disorders. Liver disorders. Kidney disorders. Allergies.

### Environmental Hazard

See Section 12 for additional Ecological Information.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
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Calcium carbonate	471-34-1	30 - 40
Phenol	108-95-2	.01-.05
Formaldehyde	50-00-0	.01-0.04
Titanium dioxide	13463-67-7	1 - 5
Manganese dioxide	1313-13-9	2.5 - 10
Hydrogenated terphenyls	61788-32-7	1 - 5

#### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Get medical attention immediately if symptoms occur.
<b>Skin Contact</b>	Wash skin with soap and water.
<b>Inhalation</b>	Administer oxygen if breathing is difficult and you are trained. Apply artificial respiration if victim is not breathing.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Consult a physician.
<b>Notes to Physician</b>	Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

<b>Flash Point Method</b>	> 93 °C / > 200 °F Closed cup
<b>Suitable Extinguishing Media</b>	Use: Water spray. Carbon dioxide (CO <sub>2</sub> ). Dry chemical.
<b>Uniform Fire Code</b>	• Combustible Liquid: III-B
<b>Hazardous Combustion Products</b>	Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), Sulfur oxides, Nitrogen oxides (NO <sub>x</sub> ), Aldehydes
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	Not impact sensitive.
<b>Sensitivity to Static Discharge</b>	Not sensitive.
<b>Protective Equipment and Precautions for Firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>NFPA</b>	<b>Health Hazard</b> 1 <b>Flammability</b> 1 <b>Stability</b> 0 <b>Physical and Chemical Hazards</b> N/A

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with the skin and the eyes. Use personal protective equipment. Ensure adequate ventilation. Refer to Section 8.
<b>Methods for Containment</b>	Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).
<b>Methods for Cleaning Up</b>	Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

#### 7. HANDLING AND STORAGE

**Handling** Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not smoke.

**Storage** Keep at temperature not exceeding -40°C. Keep out of the reach of children.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Calcium carbonate 471-34-1		TWA: 5 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>
Phenol 108-95-2	TWA: 5 ppm	TWA: 5 ppm TWA: 19 mg/m <sup>3</sup>	IDLH: 250 ppm Ceiling: 60 mg/m <sup>3</sup> Ceiling: 15.6 ppm TWA: 5 ppm TWA: 19 mg/m <sup>3</sup>
Formaldehyde 50-00-0		TWA: 0.75 ppm	IDLH: 20 ppm Ceiling: 0.1 ppm TWA: 0.016 ppm
Titanium dioxide 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup>	IDLH: 5000 mg/m <sup>3</sup>
Manganese dioxide 1313-13-9	TWA: 0.2 mg/m <sup>3</sup>	(vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup>	IDLH: 500 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>
Hydrogenated terphenyls 61788-32-7	TWA: 0.5 ppm	(vacated) TWA: 0.5 ppm (vacated) TWA: 5 mg/m <sup>3</sup>	TWA: 0.5 ppm TWA: 5 mg/m <sup>3</sup>

**Engineering Measures** Showers, eyewash stations, and ventilation systems.

### Personal Protective Equipment

#### Eye/Face Protection

Safety glasses with side-shields.

#### Skin and Body Protection

Wear protective gloves/clothing.

#### Respiratory Protection

Maintain adequate ventilation.

### Hygiene Measures

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. General industrial hygiene practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Gray	<b>Odor</b>	Sulphurous
<b>Physical State</b>	Paste/Gel	<b>pH</b>	No data available
<b>Flash Point</b>	> 93 °C / > 200 °F	<b>Method</b>	Closed cup
<b>Autoignition Temperature</b>	No data available	<b>Boiling Point/Range</b>	Not applicable
<b>Explosion Limits</b>	No information available	<b>Flammability Limits in Air</b>	No information available
<b>Specific Gravity</b>	1.63 g/cc	<b>Solubility</b>	Soluble in aromatic hydrocarbons and ketones
<b>Evaporation Rate</b>	No information available	<b>Vapor Pressure</b>	No information available
<b>Vapor Density</b>	No information available.	<b>Weight per Gallon (lbs)</b>	13.41
<b>Actual VOC (lb/gal)</b>	0.07	<b>EPA VOC (lb/gal)</b>	0.07
<b>EPA VOC (g/l)</b>	8	<b>Viscosity</b>	Thixotropic paste

## 10. STABILITY AND REACTIVITY

**Stability** Stable under normal conditions.

**Incompatible Products** Incompatible with strong acids and bases. Strong reducing agents.

**Conditions to Avoid** Keep away from children.

**Hazardous Decomposition Products** Carbon oxides. Nitrogen oxides (NOx). Sulfur oxides.

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

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

**Product Information** The product itself has not been tested. May be harmful if swallowed.

**Irritation** Moderately irritating to eyes, skin and respiratory system.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium carbonate	6450 mg/kg ( Rat )		
Phenol	317 mg/kg ( Rat )	525 mg/kg ( Rat ) 630 mg/kg ( Rabbit )	
Formaldehyde	100 mg/kg ( Rat )	270 mg/kg ( Rabbit )	0.578 mg/L ( Rat ) 4 h 250 ppm ( Rat ) 4 h
Titanium dioxide	10000 mg/kg ( Rat )		
Manganese dioxide	9000 mg/kg ( Rat )		
Hydrogenated terphenyls	10200 mg/kg ( Rat )	6800 mg/kg ( Rabbit )	4.3 mg/L ( Rat ) 4 h

### Chronic Toxicity

**Chronic Toxicity** Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen. This product contains titanium dioxide which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is a liquid.

Chemical Name	ACGIH	IARC	NTP	OSHA
Formaldehyde	A2	Group 1	Reasonably Anticipated	X
Titanium dioxide		Group 2B		X

**ACGIH: (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

**IARC: (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

**Target Organ Effects** Liver, Kidney, Skin

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

This product contains an ingredient that is classified, according to European regulations, as "harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment".

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)

Phenol	EC50 = 150 mg/L 96 h	LC50 5 - 12 mg/L Oncorhynchus mykiss 96 h LC50= 23.88 mg/L Lepomis macrochirus 96 h LC50= 24 mg/L Pimephales promelas 96 h LC50= 27.8 mg/L Brachydanio rerio 96 h LC50= 40 mg/L Poecilia reticulata 96 h LC50= 8.9 mg/L Oncorhynchus mykiss 96 h	EC50 21 - 36 mg/L 30 min EC50 = 23.28 mg/L 5 min EC50 = 25.61 mg/L 15 min EC50 = 28.8 mg/L 5 min EC50 = 31.6 mg/L 15 min	LC50 = 13 mg/L 48 h EC50 = 23.0 mg/L 48 h
Formaldehyde		LC50= 0.10 mg/L Lepomis macrochirus 96 h LC50= 24.1 mg/L Pimephales promelas 96 h LC50= 41 mg/L Brachydanio rerio 96 h	EC50 = 1.2 mg/L 1 h EC50 = 16.5 mg/L 30 min EC50 = 3.7 mg/L 5 h EC50 = 5.39 mg/L 72 h EC50 = 6.81 mg/L 25 min EC50 = 7.26 mg/L 15 min EC50 = 9.0 mg/L 5 min	EC50 = 2 mg/L 48 h EC50 = 20 mg/L 96 h
Hydrogenated terphenyls	EC50 > 0.53 mg/L 96 h	LC50> 0.53 mg/L Lepomis macrochirus 96 h LC50> 0.53 mg/L Oncorhynchus mykiss 96 h LC50> 0.53 mg/L Pimephales promelas 96 h		EC50 = 0.011 mg/L 48 h

Chemical Name	Log Pow
Phenol	= 1.47
Formaldehyde	= 0.35 25 °C
Manganese dioxide	< 0 20 °C

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method** Dispose of contents/container in accordance with local regulation.

**Contaminated Packaging** Dispose of in accordance with local regulations.

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Calcium carbonate - 471-34-1				
Phenol - 108-95-2				
Formaldehyde - 50-00-0				
Titanium dioxide - 13463-67-7				
Manganese dioxide - 1313-13-9				
Hydrogenated terphenyls - 61788-32-7				

Chemical Name	California Hazardous Waste Status
Phenol	Toxic; Corrosive
Formaldehyde	Toxic; Ignitable

### 14. TRANSPORT INFORMATION

**DOT** Not regulated  
**UN-No** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

## 15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not Comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Phenol	108-95-2	.01-.05	1.0
Formaldehyde	50-00-0	.01-0.04	0.1
Manganese dioxide	1313-13-9	2.5 - 10	1.0

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Clean Water Act**

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phenol 108-95-2 ( .01-.05 )	1000 lb	X	X	X
Formaldehyde 50-00-0 ( .01-0.04 )	100 lb			X

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Phenol	108-95-2	.01-.05	Present	Group III		
Formaldehyde	50-00-0	.01-0.04	Present	Group I		
Manganese dioxide	1313-13-9	2.5 - 10	Present (includes any unique chemical substance that contains Manganese as part of its infrastructure)			

**CERCLA**

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Phenol	1000 lb	1000 lb

Formaldehyde	100 lb	100 lb
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### U.S. State Regulations

#### California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Formaldehyde	50-00-0	Carcinogen

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Calcium carbonate	X		X		X
Phenol	X	X	X	X	X
Formaldehyde	X	X	X	X	X
Titanium dioxide	X	X	X		X
Manganese dioxide		X	X	X	
Hydrogenated terphenyls	X		X		

### International Regulations

#### Mexico - Grade

Slight risk, Grade 1

Chemical Name	Carcinogen Status	Exposure Limits
Calcium carbonate		Mexico: TWA= 10 mg/m <sup>3</sup>
Phenol		Mexico: TWA= 5 ppm Mexico: TWA= 19 mg/m <sup>3</sup>
Formaldehyde	A2	
Titanium dioxide		Mexico: TWA= 10 mg/m <sup>3</sup>
Manganese dioxide		Mexico: TWA= 0.2 mg/m <sup>3</sup>
Hydrogenated terphenyls		Mexico: TWA= 0.5 ppm Mexico: TWA= 5 mg/m <sup>3</sup>

#### Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

#### WHMIS Hazard Class



D2A Very toxic materials

D2B Toxic materials



Chemical Name	NPRI
Phenol	X
Formaldehyde	X
Manganese dioxide	X

16. OTHER INFORMATION

NFPA	HMIS	PPE	Transport Symbol						
	<table border="1" style="border-collapse: collapse;"> <tr> <td style="background-color: #0000FF; color: white;">Health Hazard</td> <td style="text-align: center; font-weight: bold;">1</td> </tr> <tr> <td style="background-color: #FF0000; color: white;">Fire Hazard</td> <td style="text-align: center; font-weight: bold;">1</td> </tr> <tr> <td style="background-color: #FFFF00;">Reactivity</td> <td style="text-align: center; font-weight: bold;">0</td> </tr> </table>	Health Hazard	1	Fire Hazard	1	Reactivity	0		Not regulated
Health Hazard	1								
Fire Hazard	1								
Reactivity	0								

**Prepared By** David Jordan  
 Director of R&D

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**Revision Note** (M)SDS sections updated. 1. 3. 5. 11. 13. 16.

**Disclaimer**

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**End of MSDS**