



# Material Safety Data Sheet

Issuing Date January 6, 2010

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Revision Number 07

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** AC-@521 Base  
**Product Code(s)** AC-521 Electrical Potting Compound Base  
**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** White

**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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Phenol	108-95-2	.001-.004
Formaldehyde	50-00-0	.0001-0.004
Barium sulfate	7727-43-7	20 - 30
Silicon Dioxide - hydrated	7631-86-9	1 - 2.5

#### 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>Hazardous Combustion Products</b>	Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), Sulfur oxides, 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

<b>Handling</b>	Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not smoke.
<b>Storage</b>	Keep at temperatures below 28°C.. Keep out of the reach of children.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
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
Barium sulfate 7727-43-7	TWA: 10 mg/m <sup>3</sup>	(vacated) TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
Silicon Dioxide - hydrated 7631-86-9	10 mg/m <sup>3</sup>	20 mppcf TWA; ((80)/(%) SiO <sub>2</sub> ) mg/m <sup>3</sup> )	IDLH: 3000 mg/m <sup>3</sup> TWA: 6 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>	White	<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>	1.76 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>	14.66
<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 (NO<sub>x</sub>). 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
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
Silicon Dioxide - hydrated	5000 mg/kg ( Rat )	2000 mg/kg ( Rabbit )	

### 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.

Chemical Name	ACGIH	IARC	NTP	OSHA
Formaldehyde	A2	Group 1	Reasonably Anticipated	X

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

A2 - Suspected Human Carcinogen

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

Group 1 - 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
Silicon Dioxide - hydrated	EC50 = 440 mg/L 72 h	LC50= 5000 mg/L Brachydanio rerio 96 h		EC50 = 7600 mg/L 48 h

Chemical Name	Log Pow
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Phenol	= 1.47
Formaldehyde	= 0.35 25 °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
Phenol - 108-95-2				
Formaldehyde - 50-00-0				
Barium sulfate - 7727-43-7				
Silicon Dioxide - hydrated - 7631-86-9				

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

### 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 Complies  
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 does not contain any 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	.001-.004	1.0
Formaldehyde	50-00-0	.0001-0.004	0.1
Barium sulfate	7727-43-7	20 - 30	1.0

#### SARA 311/312 Hazard Categories

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

**Clean Water Act**

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phenol 108-95-2 ( .001-.004 )	1000 lb	X	X	X
Formaldehyde 50-00-0 ( .0001-0.004 )	100 lb			X

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Phenol	108-95-2	.001-.004	Present	Group III		
Formaldehyde	50-00-0	.0001-0.004	Present	Group I		

**CERCLA**

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Phenol	1000 lb	1000 lb
Formaldehyde	100 lb	100 lb

**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
Phenol	X	X	X	X	X
Formaldehyde	X	X	X	X	X
Barium sulfate	X	X	X		X
Silicon Dioxide - hydrated	X	X	X		

**International Regulations****Mexico - Grade**

Slight risk, Grade 1

Chemical Name	Carcinogen Status	Exposure Limits
Phenol		Mexico: TWA= 5 ppm Mexico: TWA= 19 mg/m <sup>3</sup>
Formaldehyde	A2	
Barium sulfate		Mexico: TWA= 0.5 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

### 16. OTHER INFORMATION

NFPA	HMIS	PPE	Transport Symbol						
	<table border="1"> <tbody> <tr> <td>Health Hazard</td> <td>1</td> </tr> <tr> <td>Fire Hazard</td> <td>1</td> </tr> <tr> <td>Reactivity</td> <td>0</td> </tr> </tbody> </table>	Health Hazard	1	Fire Hazard	1	Reactivity	0		Not regulated
Health Hazard	1								
Fire Hazard	1								
Reactivity	0								

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Director of R&D

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**Revision Note** (M)SDS sections updated. 1. 2. 3. 5. 9. 11. 14. 15. 16.

#### Disclaimer

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

**End of MSDS**