



# Material Safety Data Sheet

Issuing Date December 23, 2009

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Revision Number 06

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** AC-@240 Class B Mixed  
**Product Code(s)** AC-240 Class B-1/2, B-2, and B-4 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 % |
|---------------|--------|----------|
|---------------|--------|----------|

|                         |            |             |
|-------------------------|------------|-------------|
| Calcium carbonate       | 471-34-1   | 30 - 40     |
| Phenol                  | 108-95-2   | .001-.004   |
| Formaldehyde            | 50-00-0    | .0001-0.004 |
| Hydrogenated terphenyls | 61788-32-7 | 1-5         |
| Manganese dioxide       | 1313-13-9  | 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<br>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, 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

|                 |  |
|-----------------|--|
| <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. |
|-----------------|--|

**Storage**

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

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

| Chemical Name                         | ACGIH TLV                  | OSHA PEL   | NIOSH IDLH   |
|---------------------------------------|----------------------------|--|--|
| Calcium carbonate<br>471-34-1         |                            | TWA: 5 mg/m <sup>3</sup><br>TWA: 15 mg/m <sup>3</sup>                  | TWA: 5 mg/m <sup>3</sup><br>TWA: 10 mg/m <sup>3</sup>  |
| Phenol<br>108-95-2                    | TWA: 5 ppm                 | TWA: 5 ppm<br>TWA: 19 mg/m <sup>3</sup>                                | IDLH: 250 ppm<br>Ceiling: 60 mg/m <sup>3</sup><br>Ceiling: 15.6 ppm<br>TWA: 5 ppm<br>TWA: 19 mg/m <sup>3</sup> |
| Formaldehyde<br>50-00-0               |                            | TWA: 0.75 ppm  | IDLH: 20 ppm<br>Ceiling: 0.1 ppm<br>TWA: 0.016 ppm   |
| Hydrogenated terphenyls<br>61788-32-7 | TWA: 0.5 ppm               | (vacated) TWA: 0.5 ppm<br>(vacated) TWA: 5 mg/m <sup>3</sup>           | TWA: 0.5 ppm<br>TWA: 5 mg/m <sup>3</sup>   |
| Manganese dioxide<br>1313-13-9        | TWA: 0.2 mg/m <sup>3</sup> | (vacated) Ceiling: 5 mg/m <sup>3</sup><br>Ceiling: 5 mg/m <sup>3</sup> | IDLH: 500 mg/m <sup>3</sup><br>TWA: 1 mg/m <sup>3</sup><br>STEL: 3 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>         | 1.61 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 )<br>630 mg/kg ( Rabbit ) |   |
| Formaldehyde            | 100 mg/kg ( Rat )   | 270 mg/kg ( Rabbit )                      | 0.578 mg/L ( Rat ) 4 h<br>250 ppm ( Rat ) 4 h |
| Hydrogenated terphenyls | 10200 mg/kg ( Rat ) | 6800 mg/kg ( Rabbit )                     | 4.3 mg/L ( Rat ) 4 h                          |
| Manganese dioxide       | 9000 mg/kg ( Rat )  |   |   |

### 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    |

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

|                         |                       |  |  |                        |
|-------------------------|-----------------------|--|--|------------------------|
| Hydrogenated terphenyls | EC50 > 0.53 mg/L 96 h | LC50> 0.53 mg/L Lepomis macrochirus 96 h<br>LC50> 0.53 mg/L Oncorhynchus mykiss 96 h<br>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.

| 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               |                                      |                        |                        |                        |
| Hydrogenated terphenyls - 61788-32-7 |                                      |                        |                        |                        |
| Manganese dioxide - 1313-13-9        |                                      |                        |                        |                        |

| 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

|                      |                 |
|----------------------|-----------------|
| <b>TSCA</b>          | Complies        |
| <b>DSL</b>           | Complies        |
| <b>EINECS/ELINCS</b> | Complies        |
| <b>ENCS</b>          | Does not Comply |
| <b>IECSC</b>         | Complies        |
| <b>KECL</b>          | Complies        |
| <b>PICCS</b>         | Complies        |
| <b>AICS</b>          | 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  | .001-.004   | 1.0                           |
| Formaldehyde      | 50-00-0   | .0001-0.004 | 0.1                           |
| Manganese dioxide | 1313-13-9 | 1-5         | 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<br>108-95-2 ( .001-.004 )        | 1000 lb                     | X                      | X                         | X                          |
| Formaldehyde<br>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       |                         |                         |
| Manganese dioxide | 1313-13-9 | 1-5         | 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                             |

**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            |
| Hydrogenated terphenyls | X             |            | X            |          |              |
| Manganese dioxide       |               | X          | 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<br>Mexico: TWA= 19 mg/m <sup>3</sup>  |
| Formaldehyde            | A2                |  |
| Hydrogenated terphenyls |                   | Mexico: TWA= 0.5 ppm<br>Mexico: TWA= 5 mg/m <sup>3</sup> |
| Manganese dioxide       |                   | Mexico: TWA= 0.2 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"> <tr> <td>Health Hazard</td> <td style="text-align: center;"><b>1</b></td> </tr> <tr> <td>Fire Hazard</td> <td style="text-align: center;"><b>1</b></td> </tr> <tr> <td>Reactivity</td> <td style="text-align: center;"><b>0</b></td> </tr> </table> | Health Hazard | <b>1</b>         | Fire Hazard | <b>1</b> | Reactivity | <b>0</b> |  | Not regulated |
| Health Hazard | <b>1</b>   |               |                  |             |          |            |          |  |               |
| Fire Hazard   | <b>1</b>   |               |                  |             |          |            |          |  |               |
| Reactivity    | <b>0</b>   |               |                  |             |          |            |          |  |               |

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

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**Revision Note** (M)SDS sections updated. 1. 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**