



# Material Safety Data Sheet

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Revision Number 10

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** AC-@360 Class B Mixed  
**Product Code(s)** AC-360 Class B-1/2 and B-2 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 (8-5 Pacific time)  
**Emergency Telephone Number** Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

### CAUTION!

#### Emergency Overview

May cause skin, eye, and respiratory tract irritation

**Appearance** Dark 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	15-20
Phenol	108-95-2	.001-.03
Formaldehyde	50-00-0	.01-0.03
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 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
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>
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>

**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>	Dark gray	<b>Odor</b>	Sulphurous
<b>Physical State</b>	Paste/Gel	<b>pH</b>	Not applicable
<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>	1.35 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>	11.24
<b>Actual VOC (lb/gal)</b>	0.06	<b>EPA VOC (lb/gal)</b>	0.06
<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
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. 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

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

A1 - Known 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.

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

<b>DOT</b>	Not regulated
<b>UN-No</b>	Not regulated
<b>IATA</b>	Not regulated
<b>IMDG/IMO</b>	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	.001-.03	1.0
Formaldehyde	50-00-0	.01-0.03	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**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phenol 108-95-2 ( .001-.03 )	1000 lb	X	X	X
Formaldehyde 50-00-0 ( .01-0.03 )	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-.03	Present	Group III		
Formaldehyde	50-00-0	.01-0.03	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 Mexico: TWA= 19 mg/m <sup>3</sup>
Formaldehyde	A2	
Hydrogenated terphenyls		Mexico: TWA= 0.5 ppm 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
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Not regulated



Health Hazard	1
Fire Hazard	1
Reactivity	0

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

December 29, 2009

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December 28, 2009

**Revision Note**

(M)SDS sections updated. 1. 3. 11. 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**