



# Material Safety Data Sheet

Issuing Date January 4, 2010

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Revision Number 05

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** AC-645 Class B Base  
**Product Code(s)** AC-645 Class B-1/2 and B-2 Base  
**UN-No** 1866  
**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

### WARNING!

**Emergency Overview**  
COMBUSTIBLE LIQUID AND VAPOR  
Harmful by inhalation  
Harmful if swallowed  
**Physical State** Paste/Gel

**Appearance** Tan

**Odor** Aromatic

**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

Irritating to eyes. Vapor may cause irritation.

#### Skin

May cause sensitization by skin contact. Prolonged skin contact may defat the skin and produce dermatitis.

#### Inhalation

Harmful by inhalation. Avoid breathing vapors or mists. Inhalation of vapors in high concentration may cause irritation of respiratory system. Symptoms of overexposure are dizziness, headache, tiredness, nausea, unconsciousness, cessation of breathing.

#### Ingestion

May be harmful if swallowed. 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. Repeated or prolonged skin contact with the unexposed coating may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

### Main Symptoms

Redness. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

### 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	15 - 25
Phenol	108-95-2	.001-.045
Formaldehyde	50-00-0	.0001-0.03
Toluene	108-88-3	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.
<b>Skin Contact</b>	Wash skin with soap and water.
<b>Inhalation</b>	Move to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult and you are trained.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Consult a physician.
<b>Notes to Physician</b>	Treat symptomatically.
<b>Protection of First-aiders</b>	Remove all sources of ignition.

### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Combustible material.
<b>Flash Point Method</b>	40 °C / 104 °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: II
<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>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> 2 <b>Flammability</b> 2 <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.
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**Methods for Containment** 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).

**Methods for Cleaning Up** Pick up and transfer to properly labeled containers. Ground and bond containers when transferring material. Clean contaminated surface thoroughly. Prevent product from entering drains.

## 7. HANDLING AND STORAGE

**Handling** Wear personal protective equipment. Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with skin, eyes and clothing. Do not smoke. Remove and wash contaminated clothing before re-use.

**Storage** Keep at temperatures below 28°C.. Keep away from open flames, hot surfaces and sources of ignition. 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
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm	IDLH: 500 ppm TWA: 375 mg/m <sup>3</sup> TWA: 100 ppm STEL: 560 mg/m <sup>3</sup> STEL: 150 ppm

**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. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

### 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>	Tan	<b>Odor</b>	Aromatic
<b>Physical State</b>	Paste/Gel	<b>pH</b>	No data available
<b>Flash Point</b>	40 °C / 104 °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>	1.1 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>	9.16
<b>Actual VOC (lb/gal)</b>	0.08	<b>EPA VOC (lb/gal)</b>	0.08
<b>EPA VOC (g/l)</b>	10.1	<b>Viscosity</b>	Thixotropic paste

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under normal conditions.
<b>Incompatible Products</b>	Incompatible with strong acids and bases. Strong reducing agents.
<b>Conditions to Avoid</b>	Keep away from open flames, hot surfaces and sources of ignition. Keep away from children.
<b>Hazardous Decomposition Products</b>	Carbon oxides. Nitrogen oxides (NOx). Sulfur oxides.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

<b>Product Information</b>	The product itself has not been tested. Harmful by inhalation.
<b>Irritation</b>	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
Toluene	636 mg/kg ( Rat )	8390 mg/kg ( Rabbit )	12.5 mg/L ( Rat ) 4 h 26700 ppm ( Rat ) 1 h

### Chronic Toxicity

<b>Chronic Toxicity</b>	Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. Repeated or prolonged skin contact with the unexposed coating may cause skin irritation and/or dermatitis and sensitization of susceptible persons.
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**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

<b>Sensitization</b>	May cause sensitization of susceptible persons.
<b>Target Organ Effects</b>	Liver, Kidney, Skin, Central nervous system (CNS), Lungs

## 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
Toluene	EC50 > 433 mg/L 96 h	LC50= 13 mg/L Lepomis macrochirus 96 h LC50= 24.0 mg/L Lepomis macrochirus 96 h LC50= 24.0 mg/L Oncorhynchus mykiss 96 h LC50= 25 mg/L Pimephales promelas 96 h	EC50 = 19.7 mg/L 30 min	EC50 = 11.3 mg/L 48 h EC50 = 310 mg/L 48 h

Chemical Name	Log Pow
Phenol	= 1.47
Formaldehyde	= 0.35 25 °C
Toluene	= 2.65

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method**

Dispose of contents/container in accordance with local regulation. Can be incinerated, when in compliance with local regulations. This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

**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				

Toluene - 108-88-3			Toxic waste; (waste number F025); Waste description: Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated
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Chemical Name	California Hazardous Waste Status
Phenol	Toxic; Corrosive
Formaldehyde	Toxic; Ignitable
Toluene	Toxic; Ignitable

## 14. TRANSPORT INFORMATION

### DOT

**Proper Shipping Name** Resin Solution, flammable  
**Hazard Class** 3  
**UN-No** 1866  
**Packing Group** III

### IATA

**UN-No** 1866  
**Proper Shipping Name** Resin Solution, flammable  
**Hazard Class** 3  
**Packing Group** III  
**ERG Code** 127

### IMDG/IMO

**Proper Shipping Name** Resin Solution, flammable  
**Hazard Class** 3.3  
**UN-No** 1866  
**Packing Group** III  
**EmS No.** F-E, S-E

## 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 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-.045	1.0
Formaldehyde	50-00-0	.0001-0.03	0.1
Toluene	108-88-3	1 - 5	1.0

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	Yes
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	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-.045 )	1000 lb	X	X	X
Formaldehyde 50-00-0 ( .0001-0.03 )	100 lb			X
Toluene 108-88-3 ( 1 - 5 )	1000 lb	X	X	X

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Phenol	108-95-2	.001-.045	Present	Group III		
Formaldehyde	50-00-0	.0001-0.03	Present	Group I		
Toluene	108-88-3	1 - 5	Present	Group I		

**CERCLA**

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Phenol	1000 lb	1000 lb
Formaldehyde	100 lb	100 lb
Toluene	1000 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
Toluene	108-88-3	Developmental

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

Toluene	X	X	X	X	X
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**International Regulations**

**Mexico - Grade** Moderate risk, Grade 2

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	
Toluene		Mexico: TWA= 50 ppm Mexico: TWA= 188 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**  
 B3 Combustible liquid  
 D2A Very toxic materials  
 D2B Toxic materials



Chemical Name	NPRI
Phenol	X
Formaldehyde	X
Toluene	X

**16. OTHER INFORMATION**

NFPA	HMIS	PPE	Transport Symbol

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

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**Revision Note** (M)SDS sections updated. 2. 3. 5. 7. 9. 11. 13. 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**