





# MATERIAL SAFETY DATA SHEETS

## SECTION I - PRODUCT/ COMPANY IDENTIFICATION

Product Trade Name: **ENCORE / ENCORE AF**  
Part (Item) Number: 310070, 310075, 310076, 310077, 310093, 310094  
Manufactured for: CENTRIX INCORPORATED  
Address: 770 River Road, Shelton, CT 06484 USA  
Emergency Telephone Number: 203-929-5582  
Information Telephone Number: 800-235-5862

## SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components:	%	CAS NO.	SYMBOL	R	OTHER LIMITS
Blend of multifunctional methacrylates	26 - 32	N/E	Xn/Xi	22/36/37/38	
Initiator	0.10 - 0.35	[94-36-0]	E/Xn	2/7/36/43	

## SECTION III - HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: Harmful

## SECTION IV - FIRST AID MEASURES

Skin: Immediately wash skin with soap and water.  
. If irritation occurs seek medical advice.  
Ingestion: If swallowed do not induce vomiting. Give large quantities of water and milk. Seek medical attention.  
Inhalation: Remove to fresh air. If breathing becomes difficult, contact a physician.  
Eyes: Flush with plenty of water. Seek immediate medical attention by an Ophthalmologist.

## SECTION V - FIRE-FIGHTING MEASURES

The product is not considered to be a fire hazard.  
The information below are given for extinguishing a fire generated by other sources.  
Suitable extinguishing media: Water, Chemical Foam, Carbon Dioxide, or Dry Chemical.  
Forbidden extinguishing media: Not determined.  
Special firefighting measures: None. Wear self contained breathing apparatus.  
Unusual fire and explosion hazards: Heat can cause polymerization with rapid release of energy.  
Special protection equipment: Self Contained Breathing Apparatus if toxic fumes are generated

## SECTION VI - ACCIDENTAL RELEASE MEASURES

Personal precautions: Adopt some precautions of section VII.  
Environmental precautions: Keep spilled material out of sewers.  
Reclaiming methods: Absorb spills with inert material - keep spilled material out of sewers

## SECTION VII - HANDLING AND STORAGE

Handling: Avoid unnecessary exposure.  
Storage: Room temperature.  
Containers: Supplied by manufacturer.  
Incompatibilities: Avoid the contact with reducing and oxidizing agents, peroxides and amines.  
Other precautions: Use according to directions. Avoid contact with eyes, skin and soft tissue.

## SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION

General measures:  
Local Exhaust Ventilation: Good general ventilation should be sufficient to control airborne levels of vapors released by uncured material.  
Limits: TWA: Not determined; TLV: Not determined.

Respiratory protection: Avoid prolonged or excessive breathing of vapors of uncured material.  
Eye protection: Safety glasses or goggles.  
Skin protection: Respect good personal hygiene practice. Avoid unnecessary exposure.  
Hands protection: Impervious gloves.  
Other equipment: Lab coat.

## SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colored/uncolored paste  
Odor: None  
Boiling point: Not determined  
Flash point: Not determined  
Explosion limits: Not determined  
Water solubility: Insoluble  
Evaporation rate: Not determined

## SECTION X - STABILITY AND REACTIVITY

Stability: Stable if stored as directed.  
Conditions to avoid: Heat, light, aging and contamination.  
Materials to avoid: Reducing and oxidizing agents, peroxides and amines.  
Hazardous decomposition products: Oxides of Carbon.  
Hazardous polymerization products: May occur.

## SECTION XI - TOXICOLOGICAL INFORMATION

Ingestion: Uncured material may be harmful or fatal if swallowed.  
Eye contact: May cause irritation and damage if not removed promptly.  
Skin contact: Prolonged or repeated exposure to uncured material may cause irritation or skin rash.  
Inhalation: Prolonged or excessive inhalation may cause respiratory tract irritation.  
Prolonged exposure: Not applicable.

## SECTION XII - ECOLOGICAL INFORMATION

There is no specific information on the product. Use according to good working practice.  
Avoid releasing the product into environment.

## SECTION XIII - DISPOSAL CONSIDERATIONS

Unpolymerized (uncured) material may be hazardous waste. Incinerate uncured material and dispose in accordance with local regulations.

## SECTION XIV - TRANSPORT INFORMATION

Additional Information: Not dangerous cargo

## SECTION XV - REGULATORY INFORMATION

CLASSIFICATION IN ACCORDANCE WITH EEC DIRECTIVES.

Hazard Classification Symbol: Xn  
R22 Harmful if swallowed.  
R36-38 Irritating to eyes, respiratory system and skin.  
S36 Wear suitable protective clothing.  
Ingredients determining the label: Blend of multifunctional methacrylates

## SECTION XVI - OTHER INFORMATION

None

## CAUTION: PRODUCT FOR PROFESSIONAL USE ONLY.

The above information is based on presently available data and to our best knowledge for handling the product under normal conditions. Any use of this product in any way not indicated on this document or using it together with any other process/procedure will be exclusively under the user's responsibility.

## CENTRIX INCORPORATED

770 River Road, Shelton, CT 06484 USA  
(800) 235-5862 Tel(203) 929-5582 Fax (203) 929-6804

## CENTRIX BV

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Tel: +31 (0)30 692 70 50 Fax: +31 (0)30 693 14 21

## SECTION I - PRODUCT / COMPANY IDENTIFICATION

Product Trade Name: **ONYX, ETCHING GEL**  
Part (Item) Number: 310053, 310054, 310055, 310052  
Manufacturer: Centrix Inc.  
Address: 770 River Road  
City, State, Zip: Shelton Ct, 06484  
Emergency Telephone Number: 203-929-5582  
Information Telephone Number: 800-235-5862

## SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components: Phosphoric Acid  
CAS NO. (7664-38-2) Symbol C Concentration: 40%  
R: 34

## OTHER LIMITS

## SECTION III - HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: Corrosive

## SECTION IV - FIRST AID MEASURES

Skin: Immediately wash skin with plenty of water. If irritation occurs seek medical advice.  
Ingestion: If swallowed do not induce vomiting. Give large quantities of water and milk. Seek medical attention.  
Eyes: Flush with plenty of water. Seek immediate medical attention by an Ophthalmologist.

## SECTION V - FIRE-FIGHTING MEASURES.

The product is not considered to be a fire hazard. The information below are given for extinguishing a fire generated by other sources. Suitable Extinguishing Media: Water, Chemical Foam, Carbon Dioxide, or Dry Chemical  
Forbidden Extinguishing Media: None.

Special Exposure Hazards: Toxic fumes of Phosphoric Acid.  
Unusual fire and explosion hazards: Contact with some metals may cause formation of hydrogen gas.  
Special Protection Equipment: Self Contained Breathing Apparatus if toxic fumes are generated.

## SECTION VI - ACCIDENTAL RELEASE MEASURES

Personal Precautions: See sections VII and VIII.  
Environmental Precautions: None.  
Methods for Cleaning up: Clean up using impervious gloves and dispose of in an approved manner.

## SECTION VII - HANDLING AND STORAGE

Handling: Avoid unnecessary exposure.  
Storage: Room Temperature.  
Containers: Supplied by manufacturer.  
Incompatibility: Strong caustics, sulfites, sulfides and metals.  
Other Precautions: Use according to directions. Avoid contact with eyes, skin and soft tissue.

## SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION.

General Measures Ventilation: N/A  
Limits: TWA: 1mg/m<sup>3</sup>; TLV: 3 mg/m<sup>3</sup>.  
Respiratory Protection: N/A  
Eye Protection: Safety Glasses or Goggles.  
Skin Protection: Respect good personal hygiene practice. Avoid unnecessary exposure.  
Hands Protection: Impervious gloves  
Other Equipment: Lab Coat.

## SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES.

Appearance: Gel  
Odor: None  
pH 10% solution: below 2  
Boiling Point: 100 C  
Flash Point: N/A  
Explosion Limits: z/N/A  
Water solubility: Soluble.  
Specific Gravity: 1.3 g/cm<sup>3</sup>  
Evaporation Rate: N/A

## SECTION X - STABILITY AND REACTIVITY.

Stability: Stable.  
Conditions to avoid: Temperatures over 40°C  
Materials to avoid: Strong Caustics, Sulfites, Sulfides, Metals.  
Hazardous Decomposition Products: Toxic fumes if temperature is above 100°C.  
Hazardous Polymerization Products: None

## SECTION XI - TOXICOLOGICAL INFORMATION.

Ingestion: May cause sore throat, abdominal pain, nausea and severe burns of mouth, throat and stomach.  
Eye contact: May cause redness, pain, blurred vision, eye burns or permanent eye damage.  
Skin Contact: May cause redness, pain and severe skin burns.  
Inhalation: Inhalation is not a hazard unless the product is heated at high temperatures. In these conditions may cause irritation of the respiratory system, asphyxia or permanent damage to the lungs.  
Prolonged Exposure: Burns to eye, soft tissue or respiratory tract.

## SECTION XII - ECOLOGICAL INFORMATION.

There is no specific information on the product. Use according to good working practice.  
Avoid releasing the product into environment.

## SECTION XIII - DISPOSAL CONSIDERATIONS.

Dispose according to local regulations.

## SECTION XIV - TRANSPORT INFORMATION.

Substances determining Hazard: Phosphoric Acid.  
SEA TRANSPORTATION: IMCO # 8204 UN #1805  
AIR TRANSPORTATION: ICAO/IATA CLASS: 8  
GROUND TRANSPORTATION: RID/ADR Class: 9  
Substance Identification: #1805 Item #11c  
Hazard Label: 9

Hazard Identification: 80

## SECTION XV - REGULATORY INFORMATION

CLASSIFICATION IN ACCORDANCE WITH EEC DIRECTIVES.

Hazard Classification Symbol: C  
R34 Causes burns  
S24/S25 Avoid contact with skin and eyes  
S26/S28 In case of contact with eyes or skin, rinse immediately with plenty of water and seek medical advice.  
Ingredients Determining the label: PHOSPHORIC ACID.

## SECTION XVI - OTHER INFORMATION

None.

## CAUTION: PRODUCT FOR PROFESSIONAL USE ONLY.

The above information is based on presently available data and to our best knowledge for handling the product under normal conditions. Any use of this product in any way not indicated on this document or using it together with any other process/procedure will be exclusively under the user's responsibility. Products covered by one or more of the following U.S. patents: 4,802,950. Other U.S and International patents pending or granted.



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Making Dentistry Easier. <sup>SM</sup>

# MATERIAL SAFETY DATA SHEETS

## SECTION I - PRODUCT/ COMPANY IDENTIFICATION

Product Trade Name: **ADHERE ACTIVATOR**  
Part (Item) Number(s): 310252, 310070, 310075, 310076, 310077, 310093, 310094  
Division Name: CENTRIX, INC  
Address: 770 RIVER ROAD  
City State Zip: SHELTON, CT 06484  
Emergency Telephone Number: (800) 235-5862  
Information Telephone Number: (203) 929-5582

## SECTION II - HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Hazardous Components:	Concentration	CAS NO.	OSHA PEL	ACGIH TLV	OTHER LIMITS
Acetone	> 90 %	[67-64-1]	1000 ppm	750 ppm	
NTG-GMA	< 10 %	NE	NE	NE	

## SECTION III - HAZARDS IDENTIFICATION

Extremely flammable liquid and vapors. Vapor may cause flash fire. Harmful if swallowed.  
May cause allergic skin reaction, eye irritation or respiratory tract irritation.  
May cause central nervous system depression.

## SECTION IV - FIRST AID MEASURE

**Skin:** Wash off with soap and water. Remove contaminated clothing. If irritation persists consult a physician.  
**Ingestion:** Do not induce vomiting. If vomiting occurs prevent aspiration into lungs by keeping head below hips. Seek medical attention.  
**Eyes:** Flush with plenty of water for at least 15 minutes Wash under eyelids. Seek medical attention by an ophthalmologist.  
**Inhalation:** Remove to fresh air, give oxygen if breathing is difficult. Seek immediately medical attention.

## SECTION V - FIRE-FIGHTING MEASURES.

Flammable liquid. Explosive vapor mixtures with air may occur at within flammable limits.  
Suitable extinguishing Media: Chemical Foam, Carbon Dioxide, or Dry Chemical  
Forbidden extinguish Media: Unknown  
Special Exposure Hazards: None. Wear self contained breathing equipment  
Unusual fire and explosion hazards: Heat can initiate exotherm polymerization.  
Special Protection Equipment: Self contained breathing apparatus operated in positive pressure mode.

## SECTION VI - ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** See sections VII and VIII. Remove the sources of ignition and ventilate area. Ventilate area of leak. Remove ignitions sources.  
**Environmental Precautions:** Do not dump in sewer the spilled material.  
**Methods for Cleaning up:** Clean up using impervious gloves and dispose of in an approved manner. Use paper towels or vermiculite as absorbent. Use non-sparking tools and equipment.

## SECTION VII - HANDLING AND STORAGE

**Handling:** Avoid unnecessary exposure. Avoid breathing vapor. Avoid contact with skin, eyes, and clothing.  
**Storage:** Room temperature, preferably cool, dry place, out of sunlight. Keep away from sources of ignition. Keep container closed.  
**Containers:** Supplied by manufacturer.

**Incompatibilities:** Peroxides, Amines, Oxidizing or Reducing Agents.  
**Other Precautions:** Use according to directions. Avoid contact with eyes, skin and soft tissue.

## SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION.

**General Measures:**  
**Ventilation:** Good general ventilation.  
**Limits:** OSHA PEL (TWA): 1000 ppm; ACGIH TLV: 500 ppm (TWA).  
**Respiratory protection:** Avoid prolonged breathing vapors of the uncured material.  
**Hands Protection:** Impervious gloves.  
**Eye Protection:** Safety Glasses or Goggles.  
**Skin Protection:** Respect good personal hygiene practice. Avoid unnecessary exposure.  
**Other Equipment:** Lab Coat.

## SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES.

**Appearance:** Clear liquid  
**Vapor Density:** 3.5  
**Odor:** Fragrant, mint-like.  
**Vapor Pressure:** 180 mm. Hg  
**Boiling Point:** 56°C  
**Explosion Limits:** LEL: 2.5; UEL: 12.8 %v for Acetone  
**Flash Point:** - 4F for Acetone  
**Water solubility:** Soluble  
**Specific Gravity:** 0.8  
**Evaporation Rate:** Faster than Butyl Acetate

## SECTION X - STABILITY AND REACTIVITY.

**Stability:** Stable in normal storage conditions  
**Conditions to avoid:** Temperatures over 40°C, sources of ignition and contamination  
**Materials to avoid:** Oxidizing agents, chlorine compounds, chloroform, alkanis, acids.

**Hazardous Decomposition Products:** Carbon Oxides  
**Hazardous Polymerization Products:** Will not occur

## SECTION XI - TOXICOLOGICAL INFORMATION.

**Ingestion:** May cause indigestion or may be fatal  
**Eye contact:** May cause irritation, pain, eye burns or permanent eye damage.  
**Skin Contact:** May cause irritation or rash for persons with preexistent skin sensitivity.  
**Inhalation:** Inhalation may cause irritation of the respiratory system.  
**Prolonged exposure:** N/A

For Acetone: Oral LD50 rats 5800 mg. / kg; Inhalation LC50 rat: 50100 mg/m3.

## SECTION XII - ECOLOGICAL INFORMATION.

There is no specific information on the product. Use according to good working practice.

## SECTION XIII - DISPOSAL CONSIDERATIONS.

Incinerate or dispose according to local regulations.

## SECTION XIV - TRANSPORT INFORMATION.

Substances determining Hazard: Acetone  
**Domestic (Land, D.O.T.)** International (Water, I.M.O.)  
**Hazard Class:** 3  
**UN/NA:** UN1090  
**Packing Group:** II  
**Hazard Class:** 3.1  
**UN/NA:** UN 1090  
**Packing Group:** II

## SECTION XV - REGULATORY INFORMATION

CLASSIFICATION IN ACCORDANCE WITH EEC DIRECTIVES.

**Hazard Classification Symbol:** Xn, F  
**R11** Highly flammable  
**R20/21/22/** Harmful by inhalation, in contact with skin and if swallowed  
**R36/37/38** Irritating to eyes, respiratory system and skin  
**R41/42/43/48** May cause damage to eyes, sensitization by inhalation or skin contact  
**S7** Keep container tightly closed  
**S16** Keep away from sources of ignition - no smoking  
**S36** Wear protective clothing

Ingredients Determining the label: Acetone

## SECTION XVI - OTHER INFORMATION

NFPA Ratings (for Acetone): Health 1; Flammability 3; Reactivity 1.

**CAUTION: PRODUCT FOR PROFESSIONAL USE ONLY.**

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## SECTION I - PRODUCT/ COMPANY IDENTIFICATION

Product Trade Name: **ADHERE ADHESIVE**  
Part (Item) Number(s): 310251, 310070, 310075, 310076, 310077, 310093, 310094  
Division Name:CENTRIX, INC  
Address: 770 RIVER ROAD  
City State Zip: SHELTON, CT 06484  
Emergency Telephone Number: (800) 235-5862  
Information Telephone Number: (203) 929-5582

## SECTION II - HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Hazardous Components:	Concentration	CAS NO.	OSHA PEL	ACGIH TLV	OTHER LIMITS
Acetone	30 - 45	[67-64-1]	1000 ppm	750 ppm	
PMGDM	30 - 40	NE	NE	NE	
Ethyl Alcohol	10 - 20 %	64-17-5			
Hydroxyethylmethacrylate	10 - 20 %	[868-77-9]	NE	NE	
Potassium hexafluoroantimonate	< 10		16893-92-8		

## SECTION III - HAZARDS IDENTIFICATION

May cause allergic skin reaction, eye irritation or respiratory tract irritation.  
Very flammable liquid and vapors. Vapors may cause flashfire. Explosive mixtures with air may occur at room temperature.May cause central nervous system depression.  
Harmful if swallowed or inhaled.

## SECTION IV - FIRST AID MEASURES

**Skin:** Wash off with soap and water. Remove contaminated clothing. If irritation persists consult a physician.  
**Ingestion:** Do not induce vomiting, seek medical attention.  
**Eyes:** Flush with plenty of water. Seek medical attention by an ophthalmologist.  
**Inhalation:** Remove to fresh air, give oxygen and seek immediately medical attention.

## SECTION V - FIRE-FIGHTING MEASURES.

Flammable liquid.  
Suitable extinguishing Media: Chemical Foam, Carbon Dioxide, or Dry Chemical  
Forbidden extinguish Media: Unknown  
Special Exposure Hazards: None. Wear self contained breathing equipment  
Unusual fire and explosion hazards: Heat can initiate exotherm polymerization.  
Special Protection Equipment:Self contained breathing apparatus operated in positive pressure mode.

## SECTION VI - ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** See sections VII and VIII. Remove the sources of ignition and ventilate area.  
**Environmental Precautions:** Do not dump in sewer the spilled material.  
**Methods for Cleaning up:** Clean up using impervious gloves and dispose of in an approved manner. Use paper towels or vermiculite as absorbent. Use non-sparking tools and equipment.

## SECTION VII - HANDLING AND STORAGE

**Handling:** Avoid unnecessary exposure.  
**Storage:** Room temperature, preferably cool, dry place, out of sunlight.. Keep away from sources of ignition.  
**Containers:** Supplied by manufacturer.

**Incompatibilities:** Peroxides, Amines, Oxidizing or Reducing Agents.  
**Other Precautions:** Use according to directions. Avoid contact with eyes, skin and soft tissue.

## SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION.

**General Measures:**  
**Limits:** TWA: 1000 ppm; ACGIH TLV: 500 ppm (TWA).  
**Respiratory protectio** Avoid prolonged breathing vapors of the uncured material  
**Hands Protection:** Impervious Gloves  
**Eye Protection:**Safety Glasses or Goggles.  
**Skin Protection:** Respect good personal hygiene practice. Avoid unnecessary exposure.  
**Other Equipment:** Lab Coat.

## SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES.

**Appearance:** Clear liquid  
**Vapor Density:** 3.5  
**Odor:** Fragrant, mint-like  
**Vapor Pressure:** 180 mm. Hg  
**Boiling Point:** 56°C  
**Evaporation Rate:** Faster than Butyl Acetate  
**Explosion Limits:** 2.5 - 12.8 % for Acetone  
**Flash Point:** - 4 F for Acetone  
**Water solubility:** Soluble  
**Specific Gravity:** 0.8  
**Faster than Butyl Acetate**

## SECTION X - STABILITY AND REACTIVITY.

**Stability:** Stable in normal storage conditions  
**Conditions to avoid:** Temperatures over 40°C, sources of ignition and contamination  
**Materials to avoid:** Oxidizing agents, chlorine compounds, chloroform, alkanis, acids.

**Hazardous Decomposition Products:** Carbon Oxides  
**Hazardous Polymerization Products:** Will not occur

## SECTION XI - TOXICOLOGICAL INFORMATION.

**Ingestion:** May cause indigestion or may be fatal  
**Eye contact:** May cause irritation, pain, eye burns or permanent eye damage.  
**Skin Contact:** May cause irritation or rash for persons with preexistent skin sensitivity.  
**Inhalation:** Inhalation may cause irritation of the respiratory system.  
**Prolonged exposure:** N/A

For Acetone: Oral LD50 rats 5800 mg. / kg; Inhalation LC50 rat: 50100 mg/m3.

## SECTION XII - ECOLOGICAL INFORMATION.

There is no specific information on the product. Use according to good working practice.

## SECTION XIII - DISPOSAL CONSIDERATIONS.

Incinerate or dispose according to local regulations.

## SECTION XIV - TRANSPORT INFORMATION.

Substances determining Hazard: Acetone  
**Domestic (Land, D.O.T.)** International (Water, I.M.O.)  
**Hazard Class:** 3  
**UN/NA:** UN1090  
**Packing Group:** II  
**Hazard Class:** 3.1  
**UN/NA:** UN 1090  
**Packing Group:** II

## SECTION XV - REGULATORY INFORMATION

CLASSIFICATION IN ACCORDANCE WITH EEC DIRECTIVES.

**Hazard Classification Symbol:** Xn, F  
**R11** Highly flammable  
**R20/21/22/** Harmful by inhalation, in contact with skin and if swallowed  
**R36/37/38** Irritating to eyes, respiratory system and skin  
**R41/42/43/48** May cause damage to eyes, sensitization by inhalation or skin contact  
**S7** Keep container tightly closed  
**S16** Keep away from sources of ignition - no smoking  
**S36** Wear protective clothing

Ingredients Determining the label: Acetone

## SECTION XVI - OTHER INFORMATION

NFPA Ratings (for Acetone): Health 1; Flammability 3; Reactivity 1.

**CAUTION: PRODUCT FOR PROFESSIONAL USE ONLY.**

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