



SAFETY DATA SHEET

SECTION 1

MATERIAL IDENTIFICATION

PRODUCT NAME / DESCRIPTION: EP700 D Hardener (Part B)

DISTRIBUTED / MANUFACTURED BY:
Advanced Chemical Technologies, Inc.
9608 North Robinson Avenue
Oklahoma City, OK 73114

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SECTION 2

HAZARD IDENTIFICATION

CLASSIFICATION:	
Flammability:	Category 3
Carcinogen:	Category 2
Specific target organ toxicant (central nervous system):	Category 3
Specific target organ toxicant (respiratory irritant):	Category 3
Specific target organ toxicity (repeated exposure):	Category 2
Aspiration toxicant:	Category 1
Acute Toxicity (Inhalation):	Category 4
Acute Toxicity (Dermal):	Category 4
Acute Toxicity (Oral):	Category 4
Skin irritation:	Category 2
Serious eye damage:	Category 1
Skin sensitization:	Category 1
Germ cell mutagenicity:	Category 2
Skin Corrosion:	Category 1B
Reproductive Toxicity:	Category 2
Acute aquatic toxicity:	Category 1
Chronic aquatic toxicity:	Category 1

SIGNAL WORD:

DANGER

HAZARD STATEMENTS:

Flammable liquid and vapor.
May cause respiratory irritation.
Suspected of causing cancer.
Causes Skin irritation.
Causes serious eye damage.
Suspected of causing genetic defects.

Causes severe skin burns and eye damage.
Very toxic to aquatic life with prolonged lasting effects.

May be fatal if swallowed and enters airways.
May cause drowsiness or dizziness.
Harmful in contact with skin or inhaled.
May cause allergic skin reaction.
Suspected of causing serious eye damage.
May cause damage to organs (Central nervous system) through prolonged or repeated exposure.
Suspected of damaging fertility or the unborn child.



PRECAUTIONARY STATEMENTS:

Obtain Special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flame/hot surfaces. No smoking.

Ground/bond container and receiving equipment.

Use only non-sparking tools.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Avoid release to the environment.

If swallowed, immediately call a poison center or doctor/physician.

If inhaled, remove person to fresh air and keep comfortable for breathing.

If skin irritation occurs, seek medical attention/advice.

Store in a well-ventilated place.

Dispose of contents and container in accordance with local regulations.

Do not eat, drink, or smoke when using this product.

Keep container tightly closed.

Use explosion proof electrical, ventilating, and lighting equipment.

Take precautionary measures against static discharge.

Use only outdoors or in a well ventilated area.

Wear protective gloves, clothing, and eye protection and face protection.

If on skin (or hair) take off immediately all contaminated clothing. Rinse skin with water/shower.

If exposed or concerned, seek medical attention.

In case of fire, use water fog, foam, dry chemical, or carbon dioxide (CO₂) to extinguish.

Store locked up.

Wash hands thoroughly after handling.

SECTION 3

HEALTH HAZARDS

<u>CHEMICAL NAME</u>	<u>%W/W</u>	<u>CAS No.</u>
Solvent Naphtha, Light Aromatic	< 65	64742-95-6
Teta, reaction products with phenol / formaldehyde	5% - 15%	32610-77-8
Triethylenetetramine	3% - 7%	112-24-3
Phenol	1% - 5%	108-95-2
Phenol, 4-nonyl-, branched	5% - 15%	84852-15-3

SECTION 4

FIRST AID

Potential acute health effects

Eyes:

May cause severe irritation, burns, and/or damage

Skin:

May cause severe irritation, burns, and/or damage

Inhalation:

Inhalation may cause severe irritation

Ingestion:

Ingestion may cause irritation, corrosion/ulceration, nausea, and vomiting.

Medical conditions aggravated by exposure

None known.

Eye Contact:

In case of contact, immediately flush eyes with cool running water. Lift and separate eyelids while flushing with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact:

Wash with soap and water. Get medical attention if irritation occurs. Wash clothing before reuse. Destroy contaminated shoes.

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if symptoms develop.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Give plenty of water.

SECTION 5

FIRE FIGHTING MEASURES

Fire Hazard Classification (OSHA/NFPA):

2

Extinguishing Media:

Use water fog, foam, dry chemical, or carbon dioxide (CO₂) to extinguish

Special Fire Fighting Procedures:

Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus

Unusual Fire Hazards:

(SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger. Hazardous material. Firefighters should consider protective equipment as indicated in section 8.

Hazardous Combustion Products:

Smoke, fume, oxides of carbon, incomplete combustion products.

SECTION 6

ACCIDENTAL RELEASE MEASURES

Personal Precautions, PPE, and Emergency

Wear protective clothing as described in Section 8 of this safety data sheet.

Procedures:

Containment Procedures:

Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during clean-up. Do not allow the spilled product to enter public drainage system or open water courses.

Clean-Up Procedures:

Sweep up or gather material and place in appropriate container for disposal. Wash spill area thoroughly. Wear appropriate protective equipment during cleanup. Dispose of collected material according to regulations.

SECTION 7

HANDLING AND STORAGE

Handling:

Avoid breathing mist or vapors. Avoid all personal contact. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Use only with adequate ventilation. Do not enter storage areas unless adequately ventilated. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures. However, bonding or grounds may not eliminate the hazard of static accumulation.

Storage:

Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be grounded and bonded.

SECTION 8

PERSONAL PROTECTION / EXPOSURE CONTROLS

Ventilation System:

Always keep exposure below permissible exposure limits. In general dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

Airborne Exposure Limits:

None Established.

Personal Protection:

As prescribed in the OSHA Standard for Personal Protective Equipment (29 CFR 1920.132), employers must perform a Hazard Assessment for all workplaces to determine the need for, and selection of, proper protective equipment for each task performed.

Eyes:

Wear face shield, safety glasses, or chemical goggles.

Hands & Skin:

For prolonged or repeated handling, use impervious gloves. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron and boots are recommended.

Respiratory:

If ventilation is not sufficient appropriate NIOSH/MSHA respiratory protection must be provided.

Work Practices:

Eye wash fountain and emergency showers are recommended.

SECTION 9

TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	Liquid
Color:	Yellow
Odor:	Solvent
Odor Threshold:	NE
pH:	basic
Boiling Point:	>298-360 deg F
Melting Point:	NE
Flash Point:	<200 deg F
Evaporation Rate (Butylacetate=1):	<1.0
Flammability:	Combustible
UEL:	NE
LEL:	NE
Vapor Pressure:	1 mm Hg at 68 deg F
Vapor Density:	>1
Specific Gravity (Water=1):	0.95+/-0.05
Solubility Water:	Insoluble
Partition Coefficient:	NE
Auto-ignition Temperature:	NE
Decomposition Temperature:	NE
Viscosity (CPS):	NE

SECTION 10	STABILITY AND REACTIVITY
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Stability:	This product is stable under normal temperatures and pressures.
Conditions to avoid:	Avoid heat, sparks, open flames and other ignition sources.
Materials to avoid:	Nitric Acids, Sulfuric Acids, strong oxidizers.
Hazardous Decomposition Products:	Material does not decompose at ambient temperatures

SECTION 11	TOXICOLOGICAL PROPERTIES
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Raw Material	TEST
Solvent Naphtha, Light Aromatic (64742-95-6)	N/A
CARCINOGENICITY	No known carcinogens.
MUTAGENICITY	No known mutagens.
REPRODUCTIVE TOXINS:	No known reproductive toxins.

Information on likely routes of exposure:	No data is available on the product itself.
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Acute toxicity:	
Acute oral toxicity – Product:	Acute toxicity estimate: 1,310 mg/kg Method: Calculation method

Ingredients	
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Phenol:	
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Acute inhalation toxicity:	LC50 (rat, female): > 900 mg/m3 Exposure time: 8 h Test atmosphere: dust/mist Method: OECD Test Guideline 403
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Acute dermal toxicity – product:	Acute toxicity estimate: 1,879 mg/kg Method: Calculation method
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Acute toxicity (other routes of administration):	No data available
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Skin Corrosion:	
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Product:	
Remarks:	Extremely corrosive and destructive to tissue

Serious eye damage/eye irritation:	
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Product:	
Remarks:	May cause irreversible eye damage

Respiratory or skin sensitization:	
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Product:	
Routes of exposure:	Skin
Species:	Guinea pig
Method:	OECD Test Guideline 406
Result:	Does not cause skin sensitization

Assessment:	No data available
Germ cell mutagenicity:	
Genotoxicity in vitro:	No data available
Genotoxicity in vivo:	No data available
Ingredients:	
Phenol:	
Germ cell mutagenicity – assessment:	In vitro tests showed mutagenic effects
Germ cell mutagenicity – assessment:	No data available
Carcinogenicity:	
Ingredients:	
Phenol:	
Species:	Mouse (male and female)
Application route:	Oral
Exposure time:	103 weeks
Dose:	5000 ppm
Method:	OECD Test Guideline 451
Result:	Negative
Carcinogenicity – assessment:	No data available
IARC:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.
NTP:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Reproductive toxicity:	
Product:	
Effects on fertility:	Species: Rat Application route: Oral General Toxicity Maternal: NOAEL (No observed adverse effect level: 75 mg/kg body weight Method: OECD Test Guideline 414 Result: No teratogenic effects
Ingredients:	
Phenol, 4-nonyl-, branched:	
Reproductive toxicity – assessment:	Suspected human reproductive toxicant
STOT – Single exposure	
Ingredients:	
Phenol:	
Routes of exposure:	Inhalation
Target Organs:	Narcotic effects
Assessment:	The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects
STOT – repeated exposure	
Ingredients:	
Phenol:	
Routes of exposure:	Skin contact
Target Organs:	Central nervous system
Assessment:	May cause damage to organs through prolonged or repeated exposure
Routes of exposure:	Inhalation
Target organs:	Central nervous system
Assessment:	May cause damage to organs through prolonged or repeated exposure
Repeated dose toxicity	
Product:	

Species:	Rat, male and female
NOAEL (No observed adverse effect level):	100 mg/kg
Application route:	Ingestion
Exposure time:	672 h
Number of exposures:	7 d
Method:	Subacute toxicity
Repeated dose toxicity – Assessment:	No data available

Effects on eye:	Causes eye burns
Effects on skin:	Causes skin irritation
Inhalation effects:	May cause nose, throat and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.
Ingestion effects:	May be harmful if swallowed
Symptoms:	Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: sore throat and eye disease

Acute toxicity

Acute oral toxicity:	LD50: > 2,200 mg/kg Species: rat
Inhalation:	Data available on components only, No deaths observed (as aerosol).
Inhalation – Components Phenol:	LC50 (8 h): > 0.9mg/l Species: Rat, female
Acute dermal toxicity:	LD50 1,000 mg/kg Species: rabbit Method: Calculation method
Skin corrosion/irritation:	Moderate skin irritation. Testing was performed on this or similar materials.
Serious eye damage/eye irritation:	Risk of serious damage to eyes.
Sensitization:	May cause sensitization by skin contact.

Chronic toxicity or effects from long term exposures

Carcinogenicity:	No data available
Reproductive toxicity:	No data available on the product itself.
Germ cell mutagenicity:	Results from a battery of short term genotoxicity tests on this material or its components indicate mutagenic activity.
Specific target organ systemic toxicity (Single exposure):	No data available
Specific target organ systemic toxicity (repeated exposure):	Absorption of phenolic solutions through the skin may be very rapid and can cause damage to kidneys, liver, pancreas and spleen, and edema of the lungs.
Aspiration hazard:	No data available

SECTION 12

ECOLOGICAL INFORMATION

Ecotoxicity:	Material expected to be toxic to aquatic organisms. May cause long term effects in the aquatic environment.
Mobility:	Material highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater sediments.
Persistence and Degradability:	
Biodegradation:	Expected to be readily biodegradable.
Hydrolysis:	Transformation due to hydrolysis not expected to be significant.
Photolysis:	Transformation due to photolysis not expected to be significant.
Atmospheric Oxidation:	Expected to degrade rapidly in air.

Ecotoxicity:	
Toxicity to fish – Product:	LC50 (Pimephales promelas (Feathered minnow)): 0.128 mg/l Exposure time: 96 h

Test type: Flow through test
 Test substance: fresh water
 Method: ASTM Method, other
 LC50 (Lepomis macrochirus (bluegill sunfish)): 0.209 mg/l
 Exposure time: 96 h
 Test type: Flow through test
 Test substance: fresh water
 Method: ASTM Method, other
 LC50 (oncorhynchus mykiss (rainbow trout)): 0.221 mg/l
 Exposure time: 96 h
 Test type: Flow through test
 Test substance: fresh water
 Method: ASTM Method, other
 LC50: 0.08 mg/l
 Exposure time: 96 h
 Test type: static test
 Test substance: fresh water
 Method: ASTM Method, other
 LC50: 0.05 mg/l
 Exposure time: 96 h
 Test type: static test
 Test substance: fresh water
 Method: ASTM Method, other
 EC50 (Daphnia magna (water flea)): 0.085 mg/l
 Exposure time: 48 h
 Test type: static test
 Test substance: fresh water
 Method: ASTM Method, other
 EC50 (Daphnia magna (water flea)): 0.14 mg/l
 Exposure time: 48 h
 Test substance: fresh water
 Method: Directive 67/548/EEC, Annex V, C.2.
 EC50 (Other): 0.596 mg/l
 Exposure time: 96 h
 Test type: Flow through test
 Test substance: fresh water
 Method: ASTM Method, other
 EC50 (Other): 0.0207 mg/l
 Exposure time: 96 h
 Test type: Flow through test
 Test substance: fresh water
 Method: ASTM Method, other
 EbC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): 1.3 mg/l
 Exposure time: 72 h
 Test type: Static test
 Test substance: Fresh water
 ErC50 (Selenastrum capricornutum (green algae)): 0.41 mg/l
 Exposure time: 96 h
 Test type: Static test
 Test Substance: Fresh water
 Method: Algal toxicity, Tiers I and II
 10
 NOEC Oncorhynchus mykiss (rainbow trout): 0.006 mg/l
 Exposure time: 91 d
 Test type: Flow through test
 Test substance: Fresh water

Toxicity to daphnia and other aquatic invertebrates – product

Toxicity to algae – product:

M-Factor (Acute aquatic toxicity) – Product:
 Toxicity to fish (chronic toxicity) – product:

Ingredients:
 Phenol:

Toxicity to daphnia and other aquatic invertebrates EC10 (Daphnia magna (water flea)): 4.6 mg/l

(Chronic toxicity):

Exposure time: 16 d

Test type: semi-static test

Test substance: Fresh water

10

M-Factor (Chronic aquatic toxicity) – Product:

EC50 (activated sludge): 950 mg/l

Toxicity to bacteria – Product:

Exposure time: 3 h

Test type: static test

Test substance: Fresh water

Method: OECD Test Guideline 209

Toxicity to soil dwelling organisms – product:

EC10: 3.44 mg/kg

Exposure time: 504 h

EC50 (Other) 906.7 mg/kg

Exposure time: 4 weeks

Test substance: Synthetic

Plant toxicity:

No data available

Sediment toxicity:

No data available

Ecotoxicology assessment

Ingredients

Phenol

Acute aquatic toxicity:

Harmful to aquatic life

Chronic aquatic toxicity:

Harmful to aquatic life with long-lasting effects

Toxicity data on soil"

No data available

Other organisms relevant to the environment:

No data available

SECTION 13

DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use, or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose container and unused contents in accordance with federal, state, and local requirements.

SECTION 14

TRANSPORT INFORMATION

CORROSIVE LIQUIDS, n.o.s.,

(Contains N-aminoethylpiperazine)

8, UN1760, PGIII

LABEL/PLACARD REQUIRED

SECTION 15

REGULATORY INFORMATION

US FEDERAL REGULATIONS

SARA (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

SARA 302 EXTREMELY HAZARDOUS SUBSTANCES LIST: N/A

SARA 312 HAZARD CATEGORY: N/A

SARA 313 TOXIC CHEMICALS LIST: N/A

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT): N/A

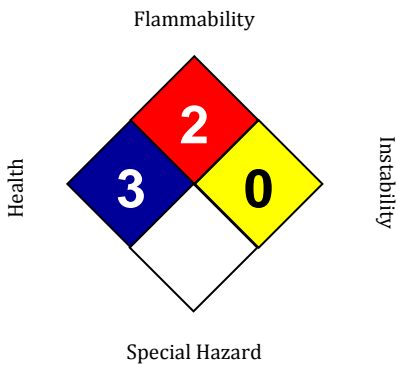
RCRA (RESOURCE CONSERVATION AND RECOVERY ACT) LISTED HAZARDOUS WASTES: N/A

CWA (CLEAN WATER ACT) LISTED SUBSTANCES: N/A

FDA (FOOD AND DRUG ADMINISTRATION): N/A

TOXIC SUBSTANCES CONTROL ACT (TSCA): ALL INGREDIENTS ARE LISTED

NFPA:



HMID III:

HEALTH	3
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant
1 = slight
2 = moderate
3 = high
4 = extreme
*** = chronic**

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