SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CCS Concentrated Sulfuric Acid Resistance Part: **A**
SYNONYMS: 161A
PRODUCT CODES: 161A

MANUFACTURER: ChemCo Systems Inc.
ADDRESS: 2800 Bay Road
Redwood City, CA. 94063
PHONE: 650 261-3790

EMERGENCY PHONE:
Chemtrec: Domestic: 800 424-9300
International: +1 703 527-3887

RECOMENDED USE: Epoxy Resin, For further information refer to the Product Data Sheet

SECTION 2: HAZARDS IDENTIFICATION

GHS Hazard:

ROUTES OF ENTRY: **EYE:** YES **SKIN:** YES **INGESTION:** YES **INHALATION:** YES

SIGNAL WORD: **WARNING!**

PHYSICAL HAZARDS: Not Classified

HEALTH HAZARDS: (ACUTE AND CHRONIC)

EYES: Eye Irritant Cat. 2
SKIN: Skin Irritant Cat. 2
Skin Sensitization Cat.1
INGESTION: Not expected to be harmful under normal use
INHALATION: Slightly irritating to the respiratory system
CARCINOGEN: Carc.Cat.2

ENVIRONMENTAL HAZARDS:
Aquatic Hazard Cat.2

HAZARD STATEMENTS:
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 – Causes serious eye damage.
H319 - Causes serious eye irritation
H351 - Suspected of causing cancer.
H411 – Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:
P261 – Avoid breathing mist/vapors/spray.
P264 - Wash…thoroughly after handling with soap and water.
P272 – Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment
P280 - Wear Protective gloves/protective clothing/eye protection/face protection
P302+P352 – IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses, If present and easy to do. Continue rinsing.
P333+P313 – If skin irritation or rash occurs: Get medical advice/attention.
P362 – Take off contaminated clothing and wash before reuse.
P337+P313 – If eye irritation persists: Get medical advice/attention.
P391 – Collect spillage.
P501 -Dispose of contents/container to an approved waste disposal plant.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
Persons with preexisting skin or respiratory disorders may have their conditions aggravated by over exposure to this material.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS	CAS #:	CAL-OSHA PEL TWA (8hours)	ACGIH TLV TWA (8 hours)	Other Limits RECOMMENDED	% BY WEIGHT
Epoxy phenol novolac resin	28064-14-4	No Data	No Data		60-80
2,3-epoxypropyl o-tolyl ether	2210-79-9	No Data	No Data		5 -25
Titanium Dioxide	13463-67-7	No Data	No Data		5-10

SECTION 4: FIRST AID MEASURES

EYES: Immediately flush eyes with water for a minimum of 15 minutes while holding eyes open. Remove contact lenses if present and easy to do. If redness, burning, blurred vision, or swelling persists, consult a physician.

SKIN: Remove contaminated clothing and product. Immediately wash affected area with soap and water. Do not apply greases or ointments. If skin irritation persists, consult a physician.

INGESTION: Rinse mouth immediately. Give small amounts of water, only if person is conscious. Only induce vomiting at the instruction of medical personnel. consult a physician

INHALATION: Remove patient to fresh air. Give oxygen or artificial respiration if needed. If patient continues to experience difficulty breathing, consult a physician.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Extinguish with foam, carbon dioxide, dry powder, or water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Use standard fire-fighting procedures and consider the hazards of other involved materials. In case of a fire and / or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn. Move containers from fire area if you can do so without risk. Cool containers with flooding quantities of water until well after fire is out. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous decomposition products may occur when material polymerizes at temperatures above 500 ºF (260 ºC). Irritating and toxic gases/fumes may be released during a fire. Do not allow run-off from fire-fighting to enter drains or water courses.

FLASH POINT: **>392 ºF / 200 ºC**
METHOD USED: **PMCC**

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION: Keep unnecessary personnel away. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate personal protective equipment. Do not touch containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ensure adequate ventilation. Local authorities should be advised if significant spillage cannot be contained.

ACCIDENTAL RELEASE MEASURES: In case of spill, clean up using absorbent material such as earth or sand. Small quantities can be wiped up with cloth, place cloth in leak proof container and dispose of properly.

WASTE DISPOSAL: Observe Federal, State and local regulations covering chemical waste spills.

SECTION 7: HANDLING AND STORAGE

PERSONAL PROTECTION: Use personal protective equipment to ensure product does not contact eyes or skin when handling materials.

HANDLING AND STORAGE: Store in cool dry place out of direct sun rays. Keep from freezing. Recommend storage temperatures range: between 40º and 95 ºF (4º - 35 ºC)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

PROTECTIVE MEASURE:	Wear appropriate personal protective equipment.
EYE PROTECTION:	Wear appropriate safety glasses with side shields, goggles or full face shield. When working on an overhead application a full face shield is recommended.
HAND PROTECTION:	Wear chemical-resistant gloves such as: Nitrile, neoprene, butyl.
SKIN AND BODY PROTECTION:	Wear long sleeve shirts/long pants and other clothing as required to minimize contact.
RESPIRATORY PROTECTION:	Do not breathe gas/fumes/vapor/ or spray. The use of a respirator is not required during general use of this product provided adequate ventilation. If grinding or cutting cured product the use of an approved respirator is recommended.
WORK HYGIENIC PRACTICES:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
ENGINEERING CONTROLS:	When using indoors, good ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Ready access to running water is required. Provide eyewash station.

EXPOSURE LIMITS

Component	OSHA (PEL)	ACGIH (TLV)	NIOSH (Pocket Guide)
Titanium Dioxide 13463-67-7	**TWA 15mg/m3**	**TWA 10mg/m3**	**TWA 15mg/m3**
2,3-epoxypropyl o-tolyl ether 2210-79-9	**No Data**	**No Data**	**No Data**

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Light Yellow
ODOR:	Mild
PHYSICAL STATE:	paste
pH AS SUPPLIED:	N/D
BOILING POINT:	>250 F
MELTING POINT:	N/D
FREEZING POINT:	N/D
VAPOR PRESSURE:	N/D
VAPOR DENSITY (AIR = 1):	Heavier than air
SPECIFIC GRAVITY (H2O = 1):	1.3
EVAPORATION RATE:	N/D
SOLUBILITY IN WATER:	Minimal
PERCENT SOLIDS BY WEIGHT:	N/D
PERCENT VOLATILE:	N/D
VOLATILE ORGANIC COMPOUNDS (VOC):	ND
MOLECULAR WEIGHT:	ND
VISCOSITY:	6800cpoise

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable
CONDITIONS TO AVOID (STABILITY):	Exposure to excessive heat and open flame
INCOMPATIBILITY (MATERIAL TO AVOID):	Strong acids, peroxides and other oxidizing agents.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	Normal combustion forms carbon dioxide, carbon monoxide, oxides o carbon and other organic compounds,
HAZARDOUS POLYMERIZATION:	Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity	**CAS#**	
Acute Oral Toxicity:		No data available on the product itself
Epoxy phenol novolac resin	28064-14-4	LD50 (24hr) 2000mg/kg Species: Rabbit
Titanium dioxide	13463-67-7	LD50 >5000mg/kg Species: Rat
2,3-epoxypropyl o-tolyl ether	2210-79-9	LD50: 5,800 mg/kg Species: Rat
Acute Dermal Toxicity:		No data available on the product itself
Epoxy phenol novolac resin	28064-14-4	LD50 (24hr) 2000mg/kg Species: Rabbit
2,3-epoxypropyl o-tolyl ether	2210-79-9	LD50: > 2,000mg/kg Species: Rabbit
Acute Inhalation Toxicity		No data available on the product itself
Titanium dioxide	13463-67-7	LC50(4hr) 6.82 mg/l Species: Rat
2,3-epoxypropyl o-tolyl ether	2210-79-9	LD50 (4h): 1220 ppm Species: Rat
Skin Corrosion/ Irritation:		Slightly irritating
Corrosion/Irritation Components		
Eye Damage/Irritation:		Mild irritation
Damage/Irritation Components		
2,3-epoxypropyl o-tolyl ether	2210-79-9	Mild eye irratation
Respiratory Damage/Irritation:		
Damage/irritation Components		
Sensitization:		Moderate Dermal Sensitization.
Germ Cell Mutagenicity		The product or a component may be mutagenic, the data is inconclusive.
Maternal Toxicity:		No data available on the product itself
Carcinogenicity:		
Classification		
ACGIH:	Not Classified	

IARC:	TiO2: IARC Group 2B carcinogen "possibly carcinogen to humans". This product contains titanium dioxide which IARC has classified as a Group 2B carcinogen (possible carcinogenic to humans). Evidence is based on sufficient animal testing as a result of long-term inhalation at high concentrations of respirable amounts of titanium dioxide. Because this product is in liquid or paste form. It does not pose a dust hazard; therefore, **this classification is not relevant**. Note: sanding of this product will create a possible dust hazard.
NTP	Not Listed
OSHA	Not Classified

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:	**CAS#**	
Aquatic toxicity:		No data on product itself
Toxicity to Fish-Components		
Epoxy phenol novolac resin	28064-14-4	LC50(96hr) 1.5mg/l Species: Daphnia
Epoxy phenol novolac resin	28064-14-4	EC50(48hr) 1.7mg/l Species: Dapnia
Toxicity to other organisms:		

PERSISTENCE & DEGRADABILITY:	
BIODEGRADABILITY:	No data available on product itself
Biodegradability-Components	
BIOACCUMULATIVE POTENTIAL**:**	No data available on product itself
BioAccumulaive-Components:	
MOBILITY IN SOIL:	NDA
OTHER ADVERSE EFFECTS:	NDA
AQUATIC RELEASE:	Advise authorities if product has entered or may enter watercourses or sewer drains.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Do not allow this material to drain into sewers / waterways, ditches, containment pools or water supplies. Dispose of contents / containers in accordance with local/regional/international regulations.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

PROPER SHIPPING NAME:	
HAZARD CLASS:	
ID NUMBER:	Not Regulated for transportation
PACKING GROUP:	
LABEL STATEMENT:	

WATER TRANSPORTATION (IMDG)

PROPER SHIPPING NAME:	Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin Mixture), Marine Pollutant
HAZARD CLASS:	9
ID NUMBER:	UN3082
PACKING GROUP:	III
LABEL STATEMENT:	Marine Pollutant

AIR TRANSPORTATION (IATA / ICAO)

PROPER SHIPPING NAME:	Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin Mixture)
HAZARD CLASS:	9
ID NUMBER:	UN3082
PACKING GROUP:	III
LABEL STATEMENT:	Marine Pollutant

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT):

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):

OSHA: 29 CFR 1910.1200 (Hazard Communication required)

WHMIS -

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

302/304 -

311/312 HAZARD CATEGORIES:

Acute Health Hazard:	Yes
Chronic Health Hazard:	Yes
Fire Hazard:	No
Pressure Release Hazard:	No
Reactivity Hazard:	No

313 REPORTABLE INGREDIENTS: -

STATE REGULATIONS:

CALIFORNIA PROPOSITION 65 (THE SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT of 1986)

This product does not contain known levels of any chemicals known to cause cancer or reproductive harm.

SECTION 16: OTHER INFORMATION

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM	
HMIS HAZARD RATING	
HEALTH	2
FLAMMABILITY	1
REACTIVITY	1
PERSONAL PROTECTION	C
4 – Severe, 3 – Serious, 2 – Moderate, 1 - Slight	
C – (Safety glasses, gloves, apron)	

The information provided herein was believed by Contech Group to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of product and to determine the suitability of the product for its intended use.