
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CCS Paste Low Modulus, Part B
SYNONYMS: 059B
PRODUCT CODES: 223B

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

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

SECTION 2: HAZARDS IDENTIFICATION

GHS Hazard:



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

SIGNAL WORD: DANGER!

PHYSICAL HAZARDS: Not Classified

HEALTH HAZARDS (ACUTE AND CHRONIC)

EYES: Serious Eye Damage Cat. 1.
Eye irritation Cat. 2A

SKIN: Skin Irritant Cat. 2
Skin Sensitization Cat. 1.
Skin Corrosion Cat. 1B

INGESTION: Acute Oral Toxicity Cat. 4
Reproductive Toxicity Cat. 1B.
Specific target organ toxicity- single exposure Cat.3

INHALATION: Acute inhalation Toxicity Cat. 4
Reproductive Toxicity Cat. 1B.
Specific target organ toxicity- single exposure Cat.3

ENVIRONMENTAL HAZARDS:

Acute Aquatic Cat.2
Chronic Aquatic Cat.2
Acute Toxicity Cat.4

HAZARD STATEMENTS:

H302+H312+H332 - Harmful if swallowed, inhaled or in contact with skin
H314 - Causes severe skin burns and eye damage
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.
H360 - May damage fertility or the unborn child.
H411 - Toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS:

P201 - Obtain special instructions before use
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 - Wash...thoroughly after handling with soap and water
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment

SDS223bLoMod Paste
SDS DATE: 21-OCT-15

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P280 - Wear Protective gloves/protective clothing/eye protection/face protection
 P301+P312 - IF SWALLOWED Call a POISON CENTER or doctor/physician if you feel unwell.
 P301+P330+P331 - IF SWALLOWED rinse mouth. DO NOT induce vomiting.
 P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P303+P361+P353 - If ON SKIN (or hair): Remove/ take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
 P308+P313 - IF exposed or concerned: Get medical advice/attention.
 P310 - Immediately call a POSION CENTER or doctor/physician.
 P330 - Rinse mouth.
 P333+P337+P313 - If skin irritation or rash occurs and/or eye irritation persists: Get medical advice/attention.
 P362 - Take off all contaminated clothing and wash before reuse.
 P391 - Collect spillage.
 P405 - Store locked up.
 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
4-tert-Butylphenol	98-54-4	No Data	No Data		<38%
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	No Data	No Data		<7%
Bis(dimethylaminomethyl)phenol	71074-89-0	No Data	No Data		<2%
2,2,4(2,4,4)-Trimethyl-1,6-hexanediamine	25620-58-0	No Data	No Data		<20%
Benzene-1, 3-dimethaneamine	1477-55-0	No Data	No Data		<23%
Nonyl phenol	84852-15-3	No Data	No Data		<5%
Treated fumed silica	67762-90-7	No Data	No Data		<7%
Benzyl alcohol	100-51-6	No Data	No Data	(WEEL) 10ppm 8hr TWA	<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 °F (260 °C). 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: 230 °F / 110 °C

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 sunrays. Keep from freezing. Recommend storage temperatures range: between 40° and 95 °F (4° - 35 °C)

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)
4-tert-ButylPhenol 98-54-4	No Data	No Data	No Data
2,4,6-tris(dimethylaminomethyl)phenol 90-72-2	No Data	No Data	No Data
Bis(dimethylaminomethyl)phenol 71074-89-0	No Data	No Data	No Data
2,2,4(2,4,4)-Trimethyl-1,6-hexanediamine 25620-58-0	No Data	No Data	No Data
Benzene-1, 3-dimethaneamine 1477-55-0	No Data	No Data	C 0.1 mg/m3 [skin]
Nonyl phenol 84852-15-3	No Data	No Data	No Data
Treated fumed silica 67762-90-7	No Data	3mg/m3 Respirable particles	No Data
Benzyl alcohol 100-51-6	No Data	No Data	No Data

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Opaque Amber
ODOR:	Ammonia
PHYSICAL STATE:	Paste
pH AS SUPPLIED:	Basic
BOILING POINT:	N/D
MELTING POINT:	N/D
FREEZING POINT:	N/D
VAPOR PRESSURE (mm Hg):	N/D
VAPOR DENSITY (AIR = 1):	Heavier than air
SPECIFIC GRAVITY (H₂O = 1):	>1.01
EVAPORATION RATE:	Negligible
SOLUBILITY IN WATER:	Slight
PERCENT SOLIDS BY WEIGHT:	No Data
PERCENT VOLATILE:	Negligible
VOLATILE ORGANIC COMPOUNDS (VOC):	No Data
MOLECULAR WEIGHT:	N/D
VISCOSITY:	80 cps.

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 of carbon and other organic compounds,
HAZARDOUS POLYMERIZATION:	Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

	CAS #	
Acute Oral Toxicity:		No data available on the product itself
Oral-Components		
4-tert-Butylphenol	98-54-4	LD50 >2000mg/kg (OECD Test Guidelines401)
Benzene-1, 3-dimethanamine	1477-55-0	LD50 >200mg/kg Species Rat
Benzyl alcohol	100-51-6	LD50 Oral Rat: 1230mg/kg
Nonyl phenol	84852-15-3	LD50 1,412 mg/kg Rat M/F
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	LD50 Oral Rat: M/F 2169mg/kg
2,2,4(2,4,4)-Trimethyl-1,6-hexanediamine	25620-58-0	LD50 Oral Rat: 910mg/kg.
Acute Dermal Toxicity:		No data available on the product itself
Dermal-Components		
Acute Inhalation Toxicity:		No data available on the product itself
Benzene-1, 3-dimethanamine	1477-55-0	LC50 1.34mg/l Species Rat
4-tert-Butylphenol	98-54-4	LCLO 5.6mg/l Species Rat OCED test guideline 403
Benzyl alcohol	100-51-6	LC50 (4hr): >4.178 mg/L Species: Rat OECD Test Guideline 403
Skin Corrosion/ Irritation:		Severe Skin Irritation/Corrosion
Corrosion/Irritation Components		
Benzene-1, 3-dimethanamine	1477-55-0	Corrosive (skin)
2,2,4(2,4,4)-Trimethyl-1,6-hexanediamine	25620-58-0	Causes skin burns
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	Skin: Rabbit Corrosive(4hr) (OECD Test Guideline 404)
Nonyl Phenol	84852-15-3	Skin: Rabbit Causes burns (4hr) (OECD test Guideline 404)
Eye Damage/Irritation:		Severe eye damage/irritation
Damage/Irritation Components		
Benzyl alcohol	100-51-6	Irritant (eye)

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4-tert-Butylphenol	98-54-4	Cat. 1 irreversible effects on the eye
2,2,4(2,4,4)-Trimethyl-1,6-hexanediamine	25620-58-0	Risk of serious damage to eyes.
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	Corrosive
Respiratory Damage/Irritation: Damage/irritation Components		Severe respiratory damage/irritation.
Sensitization: Sensitization Components		May cause sensitization by inhalation and skin contact.
Benzene-1, 3-dimethaneamine	1477-55-0	Sensitizer (skin)
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	Sensitizer (skin) Maximization Test (GPMT) sub CAT 1B, Guinea pig.
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: This product contains no listed carcinogens according to IARC,ACGIH,NTP and/or OSHA in concentrations of 0.1 percent or greater.

ACGIH: No data

IARC: No data

NTP No data

OSHA No data

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:	CAS #	
Aquatic toxicity:		Exposure at low concentrations my kill fish
Toxicity to Fish-Components		
Benzyl Alcohol	100-51-6	LC50(96hr): 10 mg/l Species Bluegill sunfish (<i>Lepomis macrochirus</i>)
Benzyl Alcohol	100-51-6	LC50(96hr): 460 mg/l Species Flathead minnow (<i>Pimephales promelas</i>)
Benzene-1, 3-dimethaneamine	1477-55-0	LC50(96hr): 87.6mg/L Species: Killfish
4-tert-Butylphenol	98-54-4	LC50(96hr): 5.14mg/l Species: Fathead Minnow
Nonyl phenol	84852-15-3	LC50(96hr) 0.209 mg/l Species: <i>Leopmis macrochirus</i>
2,2,4(2,4,4)-Trimethyl-1,6-hexanediamine	25620-58-0	LC50(48hr): 172mg/l Species: <i>Leuciscus idus</i> (Golden orfe)
Toxicity to algae-Components		
Benzene-1, 3-dimethaneamine		EC50(72hr): 20.3mg/l Species: Algae (<i>Pseudokirchnerella subcapitata</i>)
4-tert-Butylphenol	98-54-4	IC50(72hr): 11.2mg/l Species: Algae (<i>Desmodesmus subspicatus</i>)
Benzyl Alcohol	100-51-6	IC50(72hr): 700mg/l Species: Algae
Nonyl phenol	84852-15-3	EC50(72hr): 0.33mg/l Species: <i>Selenastrum capricornutum</i> (green algae)
Toxicity-AquaticInvertabrates		
Benzene-1, 3-dimethaneamine	1477-55-0	EC50(48hr): 15.2mg/l Species <i>Daphnia magna</i>
4-tert-Butylphenol	98-54-4	EC50(48hr) 4.8mg/l Species: <i>Daphnia magna</i> (OECD Test Guideline 202)
2,2,4(2,4,4)-Trimethyl-1,6-hexanediamine	25620-58-0	EC50(24hr) 31.5mg/l Species: <i>Daphnia magna</i> .
Nonyl phenol	84852-15-3	EC50(48hr) 0.0844mg/l Species: <i>Daphnia magna</i> (Water flea)
Toxicity to other organisms:		EC50(30min): 156mg/l Bacteria: <i>Pseudomonas putida</i>
PERSISTENCE & DEGRADABILITY:		
BIODEGRADABILITY:		
Biodegradability-Components		
4-tert-Butylphenol	98-54-4	60% Biodegradable: aerobic-exposure time 28d (OECD Test Guideline 301F)
Benzene-1, 3-dimethaneamine	1477-55-0	49% Not readily biodegradable : 28d
2,2,4(2,4,4)-Trimethyl-1,6-hexanediamine	25620-58-0	7% Not readily biodegradable.
BIOACCUMULATIVE POTENTIAL:		
BioAccumulative-Components:		
4-tert-Butylphenol	98-54-4	BCF 120 (3d): 46ug/L Species: <i>Leuciscus idus melanotus</i> BCF 20.43(8w): 40mg/L Species <i>Cyprinus carpio</i>
Benzyl Alcohol	100-51-6	BCF 1.37
Benzene-1, 3-dimethaneamine	1477-55-0	Low potential for bioaccumulation
Nonyl phenol	84852-15-3	<i>Pimephales promelas</i> (fathead minnow) 28d , BCF:740

MOBILITY IN SOIL: NDA
Mobility- Components
Benzyl Alcohol 100-51-6 15.7 (calculated) Koc/Kow
OTHER ADVERSE EFFECTS: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.
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: Amines, liquid, corrosive, n.o.s. (Benzene-1, 3-dimethaneamine)
HAZARD CLASS: 8
ID NUMBER: UN2735
PACKING GROUP: II
LABEL STATEMENT: Corrosive, Hazard Class 8, Packing Group: PG II

WATER TRANSPORTATION (IMDG)

PROPER SHIPPING NAME: Amines, liquid, corrosive, n.o.s. (Benzene-1, 3-dimethaneamine)
HAZARD CLASS: 8
ID NUMBER: UN2735
PACKING GROUP: II
LABEL STATEMENT: Corrosive, Hazard Class 8, Packing Group: PG II

AIR TRANSPORTATION (IATA / ICAO)

PROPER SHIPPING NAME: Amines, liquid, corrosive, n.o.s. (Benzene-1, 3-dimethaneamine), Marine Pollutant
HAZARD CLASS: 8
ID NUMBER: UN2735
PACKING GROUP: II
LABEL STATEMENT: Corrosive, Hazard Class 8, Packing Group: PG II

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS**TSCA (TOXIC SUBSTANCE CONTROL ACT):**

**CERCLA (COMPREHENSIVE RESPONSE
COMPENSATION, AND LIABILITY ACT):** Not Listed

OSHA: 29 CFR 1910.1200 (Hazard Communication required)

WHMIS Class E: Corrosive, Class D-2A Material Causing other toxic effects

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

302/304 No
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: None

STATE REGULATIONS:**CALIFORNIA PROPOSITION 65 (THE SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT)**

This product contains chemicals in trace quantities that are on the California Proposition 65 carcinogens list.

SECTION 16: OTHER INFORMATION

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM	
HMIS HAZARD RATING	
HEALTH	3
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 ChemCo Systems 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.