
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CCS SEAL, Part B
SYNONYMS: 046B
PRODUCT CODES: 200B

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 Hardener, 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: DANGER!

PHYSICAL HAZARDS: Not Classified

HEALTH HAZARDS: (ACUTE AND CHRONIC)

EYES: Serious Eye Damage/Irritant Cat. 1
SKIN: Acute Toxicity – Dermal Cat.3
Skin Corrosion/Irritation – Cat. 1B
Skin Sensitization Cat.1
INGESTION: Acute Toxicity- Oral- Cat.3
Germ Cell Mutagenicity- Cat.2
Toxic to Reproduction[Fertility]- Cat.2
Toxic to Reproduction[Unborn Child]- Cat.2
Specific Target Organ Toxicity (repeated exposure): Skin (CNS)- Cat.2
INHALATION: Acute Toxicity Inhalation Cat.3
Slightly irritating to the respiratory system
CARCINOGEN: No Data

ENVIRONMENTAL HAZARDS:

Aquatic Acute Cat.1
Aquatic Chronic Cat.1

HAZARD STATEMENTS: H302 – Harmful if swallowed.
H304 – May be fatal if swallowed and enters airways.
H311 - Toxic 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.
H319 - Causes serious eye irritation.
H335 – May cause respiratory irritation.
H362 – Suspected of damaging fertility or the unborn child.
H371 – May cause damage to organs (CNS).
H373 – May cause damage to organs through prolonged or repeated exposure.
H410– Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:

P233 – Keep container tightly closed.
P261 – Avoid breathing 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
P280 - Wear Protective gloves/protective clothing/eye protection/face protection
P301+P312+P330 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.

P301+P330+P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 – IF ON SKIN(or hair): Remove/ Take off immediately all contaminated Clothing. Rinse skin with water/shower.
 P304+P340+P310 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately, call a POISON CENTER or doctor/physician.
 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.
 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.
 P403+P233 – Store in a well-ventilated place. Keep container tightly closed.
 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.

This product is not for use in an aerosol or spray. This product contains a component that is toxic by inhalation when aerosolized or sprayed. Refer to Section 11 of the SDS for toxicity information. Review the toxicity information against your intended use. If product is not being aerosolized or sprayed, inhalation toxicity is not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS	CAS #:	CAL-OSHA PEL TWA (8hours)	ACGIH TLV TWA (8 hours)	Other Limits RECOMMENDED	% BY WEIGHT
1-(2-Aminoethyl)piperazine	140-31-8	No Data	No Data		17%
Nonylphenol	84852-15-3	No Data	No Data		<9%
Phenol	108-95-2	No Data	No Data		<1%
1-Nonene	124-11-8	No Data	No Data		<1%
2-sec-Butylphenol	89-72-5	No Data	No Data		<7%
4-sec-Butylphenol	99-71-8	No Data	No Data		<0.1%
4,4'-Isopropylidenediphenol	80-05-7	No Data	No Data		<9%
Bis(dimethylaminomethyl)phenol	71074-89-0	No Data	No Data		<0.5%
Tris-2,4,6-(dimethylaminomethyl)phenol	90-72-2	No Data	No Data		<2%
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha."-1,2,3-propanetriyltris[.omega.-(2-aminomethylethoxy)-	64852-22-8	No Data	No Data		<4%
Treated fumed silica	67762-90-7	No Data	No Data		<5
Natural wollastonite	13983-17-0	No Data	No Data		<50
Carbon black	1333-86-4	No Data	No Data		<0.3%

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: >205 °F / 96 °C
METHOD USED: (BP) TCC

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 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 a 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/vapour/ 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)
1-(2-Aminoethyl)piperazine 140-31-8	No Data	No Data	No Data
Nonylphenol 84852-15-3	No Data	No Data	No Data
Phenol 108-95-2	TWA 5ppm (skin)	No Data	TWA 5ppm (skin)
1-Nonene 124-11-8	No Data	No Data	No Data
2-sec-Butylphenol 89-72-5	No Data	TWA 5ppm	TWA 5ppm
4-sec-Butylphenol 99-71-8	No Data	No Data	No Data
4,4'-Isopropylidenediphenol 80-05-7	TWA 5mg/m3 resp Part.	TWA 5mg/m3	No Data
Bis(dimethylaminomethyl)phenol 71074-89-0	No Data	No Data	No Data
Tris-2,4,6-(dimethylaminomethyl)phenol 90-72-2	No Data	No Data	No Data
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.,.alpha.'-1,2,3- propanetriyltris[.omega.-(2-aminomethylethoxy)- 64852-22-8	No Data	No Data	No Data
Natural wollastonite 13983-17-0	No Data	No Data	No Data
Carbon black 1333-86-4	3.5mg/m3	3mg/m3	TWA 3.5mg/m3

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Black
ODOR:	Ammoniacal
PHYSICAL STATE:	Paste
pH AS SUPPLIED:	Alkaline
BOILING POINT:	239C AEP
MELTING POINT:	N/D
FREEZING POINT:	N/D
VAPOR PRESSURE:	N/D
VAPOR DENSITY (AIR = 1):	Heavier than air
SPECIFIC GRAVITY (H2O = 1):	0.95
EVAPORATION RATE:	N/D
SOLUBILITY IN WATER:	N/D
PERCENT SOLIDS BY WEIGHT:	N/D
PERCENT VOLATILE:	Negligible
VOLATILE ORGANIC COMPOUNDS (VOC):	ND
MOLECULAR WEIGHT:	ND
VISCOSITY:	2000 p

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

Toxicity	CAS#	
Acute Oral Toxicity:		No data available on the product itself
Oral-Components		
Phenol	108-95-2	LD50 340-540 mg/kg Species: Rat M/F
Nonylphenol	84852-15-3	LD50 1412 mg/kg Species: Rat M/F
1-(2-Aminoethyl)piperazine	140-31-8	LD50 2,108 mg/kg Species: Rat
2-sec-Butylphenol	89-72-5	LD50 5,560 mg/kg Species: Rabbit
4-sec-Butylphenol	99-71-8	LD50 1,650 mg/kg Species: Rat
4,4'-Isopropylidenediphenol	80-05-7	LD50 3,250 mg/kg Species: Rat
Tris-2,4,6-(dimethylaminomethyl)phenol	90-72-2	LD50 2,169 mg/kg bw
Acute Dermal Toxicity:		No data available on the product itself
Dermal-Components		
Nonylphenol	84852-15-3	LD50 2,031 mg/kg Species: Rabbit M
Phenol	108-95-2	LD50 660 mg/kg Species: Rat F
2-sec-Butylphenol	89-72-5	200-2000 mg/kg [OECD 401] Species: Rat
1-(2-Aminoethyl)piperazine	140-31-8	LD50(24hr) 0.88ml/kg Species: Rabbit
4,4'-Isopropylidenediphenol	80-05-7	LD50 3,000 mg/kg Species: Rabbit
Tris-2,4,6-(dimethylaminomethyl)phenol	90-72-2	LD50 >1 ml/kg Species: Rat
Acute Inhalation Toxicity		No data available on the product itself
Inhalation-Components		
Phenol	108-95-2	LC50 >990 mg/m3 Species: Rat F
Skin Corrosion/ Irritation:		Severe skin irritation/corrosion
Corrosion/Irritation Components		
2-sec-Butylphenol	89-72-5	Corrosive
Phenol	108-95-2	Corrosive
4,4'-Isopropylidenediphenol	80-05-7	Skin- Erythema/Eschlar 404 Acute Dermal Irritation/corrosion
Tris-2,4,6-(dimethylaminomethyl)phenol	90-72-2	Corrosive Cat.1C
Eye Damage/Irritation:		Severe eye irritation

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Damage/Irritation Components		
2-sec-Butylphenol	89-72-5	Causes eye burns.
4,4'-Isopropylidenediphenol	80-05-7	Causes serious eye damage
Tris-2,4,6-(dimethylaminomethyl)phenol	90-72-2	Corrosive
Phenol	108-95-2	Corrosive
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:	Phenol Cat.3
NTP	Not Listed
OSHA	Not Classified

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:

Aquatic toxicity:		No data on product itself
Toxicity to Fish-Components		
Nonylphenol	84852-15-3	LC50(96hr) 0.128 mg/l
Phenol	108-95-2	LC50(96hr) 0.08 mg/l
2-sec-Butylphenol	89-72-5	LC50 (96hr) >1mg/l Species: Rainbow trout
4-sec-Butylphenol	99-71-8	LC50(96hr) 0.74 mg/l Species: Salmo salar
4,4'-Isopropylidenediphenol	80-05-7	LC50(96hr) 4.6mg/l Species: Fathead minnow
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha."-1,2,3- propanetriyltris[.omega.-(2- aminomethylethoxy)-	64852-22-8	LC50(96hr) 68 mg/l
Toxicity to algae-Components		
2-sec-Butylphenol	89-72-5	EC50(72hr) 10mg/l
Nonylphenol	84852-15-3	ErC50(96hr) 0.41 mg/l
4,4'-Isopropylidenediphenol	80-05-7	EC50(96hr) 2.73 mg/l
Toxicity-Aquatic Invertebrates		
Nonylphenol	84852-15-3	EC50(96hr) 0.596 mg/l
Phenol	108-95-2	EC50(48hr) 3.1mg/l Species: Daphnia
2-sec-Butylphenol	89-72-5	EC50(96hr) 3.7 mg/l
4,4'-Isopropylidenediphenol	80-05-7	EC50(48hr) 1-16mg/l Species: Water flea
Toxicity to other organisms:		

PERSISTENCE & DEGRADABILITY:

BIODEGRADABILITY:		
Biodegradability-Components		
Nonylphenol	84852-15-3	56 days / 50%
Phenol	108-95-2	100 days / 62%
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.',.alpha."-1,2,3- propanetriyltris[.omega.-(2- aminomethylethoxy)-	64852-22-8	Not readily biodegradable <5% 28 days
BIOACCUMULATIVE POTENTIAL:		
BioAccumulative-Components:		
Nonylphenol	84852-15-3	BCF 740 (high)
Phenol	108-95-2	LogPow 1.47 (low)

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4,4'-Isopropylidenediphenol

80-05-7

BCF 73 (low)

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

PROPER SHIPPING NAME: N-Aminoethylpiperazine
HAZARD CLASS: 8(6.1)
ID NUMBER: UN2815
PACKING GROUP: III

WATER TRANSPORTATION

PROPER SHIPPING NAME: N-Aminoethylpiperazine
HAZARD CLASS: 8(6.1)
ID NUMBER: UN2815
PACKING GROUP: III

AIR TRANSPORTATION

PROPER SHIPPING NAME: N-Aminoethylpiperazine
HAZARD CLASS: 8(6.1)
ID NUMBER: UN2815
PACKING GROUP: III

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT):

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

OSHA: 29 CFR 1910.1200 (Hazard Communication required)

WHMIS N/A

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

302/304 N/A

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: N/A

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 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.