

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Kemko 038 Regular IR, Part B
SYNONYMS: 038B
PRODUCT CODES: 103B

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

EMERGENCY PHONE:
Chemtrec: Domestic: 800 424-9300
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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.
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: Reproductive Toxicity Cat. 1B.
Specific target organ toxicity- single exposure Cat.3

ENVIRONMENTAL HAZARDS:

Acute Aquatic Cat.2
Chronic Aquatic Cat.1
Acute Toxicity Cat.4

HAZARD STATEMENTS:

H227 - Combustible liquid
H302+H312 - Harmful if swallowed 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
H319 - Causes serious eye irritation
H330 - Fatal if inhaled
H335 - May cause respiratory irritation
H361 - Suspected of damaging fertility or the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure if swallowed.
H410 - Very toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS:

P201 - Obtain special instructions before use
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

SDS038b

SDS DATE: 04-Jun-15

P262 - Do not get in eyes, on skin, or on clothing
 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
 P273 - Avoid release to the environment
 P280 - Wear Protective gloves/protective clothing/eye protection/face protection
 P281 - Use personal protective equipment as required
 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.
 P310 - Immediately call a POISON CENTER or doctor/physician.
 P333+P337+P313 - If skin irritation or rash occurs and/or eye irritation persists: Get medical advice/attention.
 P363 - Wash contaminated clothing before reuse.
 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.

HAZARDS NOT OTHERWISE CLASSIFIED

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, the inhalation toxicity may not be applicable.
 Very toxic by inhalation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS	CAS #:	CAL-OSHA PEL TWA (8hours)	ACGIH TLV TWA (8 hours)	Other Limits RECOMMENDED	% BY WEIGHT
Diethylenetriamine	111-40-0	No Data	No Data		<15%
Benzyl Alcohol	100-51-6	No Data	No Data		<3%
4-tert-Butylphenol	98-54-4	No Data	No Data		<10%
2-sec-Butylphenol	89-72-5	No Data	No Data		<25%
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	No Data	No Data		<11%
Bis(dimethylaminomethyl)phenol	71074-89-0	No Data	No Data		<2%
4-sec-Butylphenol	99-71-8	No Data	No Data		<2%
4,4'-Methylenebis(cyclohexylamine)	1761-71-3	No Data	No Data		<16%
1,5-Diamino-2-methylpentane	15520-10-2	No Data	No Data		<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: 216 °F / 102 °C

METHOD USED: Tag Closed Cup (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 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)
Diethylenetriamine 111-40-0	No Data	No Data	1 ppm (4mg/m3) skin
Benzyl Alcohol 100-51-6	No Data	No Data	No Data
4-tert-ButylAlcohol 98-54-4	No Data	No Data	No Data
2-sec-Butylphenol 89-72-5	No Data	5ppm	5ppm (30mg/m3)TWA skin

SDS038b

SDS DATE: 04-Jun-15

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
4-sec-Butylphenol 99-71-8	No Data	No Data	No Data
4,4'-Methylenebis(cyclohexylamine) 1761-71-3	No Data	No Data	No Data
1,5-Diamino-2-methylpentane 15520-10-2	No Data	No Data	No Data

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Black Viscous
ODOR:	Mild/ Ammonia
PHYSICAL STATE:	Liquid
pH AS SUPPLIED:	basic
BOILING POINT:	402F (206C)
MELTING POINT:	N/D
FREEZING POINT:	N/D
VAPOR PRESSURE (mmHg):	N/D
VAPOR DENSITY (AIR = 1):	N/D
SPECIFIC GRAVITY (H2O = 1):	0.95
EVAPORATION RATE:	N/D
SOLUBILITY IN WATER:	Slight
PERCENT SOLIDS BY WEIGHT:	
PERCENT VOLATILE:	N/D
VOLATILE ORGANIC COMPOUNDS (VOC):	N/D
MOLECULAR WEIGHT:	N/D
VISCOSITY:	150 cps
FLASH POINT:	

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

Acute Oral Toxicity:	No data available on the product itself
Oral-Components	
4-tert-Butylphenol:	LD50 >2000mg/kg (OECD Test Guidelines401)
Benzyl alcohol	LD50 Oral Rat: 1230mg/kg
4-sec-Butylphenol	LD50 Oral Rat: 2450mg/kg
4,4'-Methylenebis(cyclohexylamine)	LD50 Oral Rat: 380mg/kg
Acute Dermal Toxicity:	No data available on the product itself
Dermal-Components	
4,4'-Methylenebis(cyclohexylamine)	LD50 Dermal Rabbit: male and female: : >1000 mg/kg
Acute Inhalation Toxicity:	No data available on the product itself
Inhalation components:	
Diethylenetriamine	LC50(4hr): >0.07-0.3 mg/L Species: Rat
Benzyl Alcohol	LC50 (4hr): >4.178 mg/L Species: Rat OECD Test Guideline 403
4-tert-Butylphenol	LCLO 5.6mg/l Species Rat OCED test guideline 403
Skin Corrosion/ Irritation:	Severe Skin Irritation/Corrosion
Corrosion/Irritation Components	
4,4'-Methylenebis(cyclohexylamine)	Skin: Rabbit(24hr) : Corrosive

SDS038b

SDS DATE: 04-Jun-15

KEMKO 038 REGULAR IR, PART B
Safety Data Sheet



1,5-Diamino-2-methylpentane	RTECS: SA0248500 Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Cough, Shortness of breath, Headache, Nausea Severe eye damage/irritation
Eye Damage/Irritation: Damage/Irritation Components	
4,4'-Methylenebis(cyclohexylamine)	Eyes-Rabbit(24hr): Corrosive
4-tert-Butylphenol	Cat. 1 irreversible effects on the eye
Respiratory Damage/Irritation: Damage/Irritation Components	Severe respiratory damage/irritation.
Sensitization: Sensitization Components	May cause sensitization by inhalation and skin contact.
4,4'-Methylenebis(cyclohexylamine)	Buehler test-guinea pig-May cause sensitization by skin contact (OECD Test Guideline 406)
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:

Aquatic toxicity:	Exposure at low concentrations may kill fish
Toxicity to Fish-Components	
Benzyl Alcohol	LC50(96hr): 10 mg/l Species Bluegill sunfish (Lepomis macrochirus)
Benzyl Alcohol	LC50(96hr): 460 mg/l Species Flathead minnow (Pimephales promelas)
4-tert-Butylphenol	LC50(96hr): 5.14mg/l Species: Fathead Minnow
4-sec-Butylphenol	LC50(96hr): 0.74mg/l Species: Atlantic Salmon (Salmo salar)
4,4'-Methylenebis(cyclohexylamine)	LC50(96hr): 67.8mg/l Species: Golden orfe(Leuciscus idus) DIN 38412
Toxicity to algae-Components	
Benzyl Alcohol	IC50(72hr): 700mg/l Species: Algae
4-tert-Butylphenol	IC50(72hr): 11.2mg/l Species: Algae (Desmodesmus subspicatus)
4,4'-Methylenebis(cyclohexylamine)	EC50(72hr): 140-200mg/l Species: Green Algae (Desmodesmus subspicatus)
Toxicity-AquaticInvertebrates	
Benzyl Alcohol	EC50(24hr): 55mg/l Species: Daphnia magna(OECD Test Guideline 202)
4-tert-Butylphenol	EC50(48hr) 4.8mg/l Species: Daphnia magna (OECD Test Guideline 202)
4,4'-Methylenebis(cyclohexylamine)	EC50(48hr): 9.24mg/l Species: Daphnia Magna
Toxicity to other organisms:	EC50(30min): 156mg/l Bacteria: Pseudomonas putida

PERSISTENCE & DEGRADABILITY:

BIODEGRADABILITY:	
Biodegradability-Components	
4-tert-Butylphenol	60% Biodegradable: aerobic-exposure time 28d (OECD Test Guideline 301F)
BIOACCUMULATIVE POTENTIAL:	
BioAccumulative-Components:	
4-tert-Butylphenol	BCF 120 (3d): 46ug/L Species: Leuciscus idus melanotus BCF 20.43(8w): 40mg/L Species Cyprinus carpio
4-sec-Butylphenol	BCF 28 (96hr) : 560mg/l Species: Atlantic salmon (Salmo salar)

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: Amines, liquids, corrosive, n.o.s. (Diethylenetriamine Mixture)
HAZARD CLASS: 8
ID NUMBER: UN2735
PACKING GROUP: II
LABEL STATEMENT: Corrosive

WATER TRANSPORTATION (IMDG)

PROPER SHIPPING NAME: Amines, liquids, corrosive, n.o.s. (Diethylenetriamine Mixture), Marine Pollutant
HAZARD CLASS: 8
ID NUMBER: UN2735
PACKING GROUP: II
LABEL STATEMENT: Corrosive

AIR TRANSPORTATION (IATA / ICAO)

PROPER SHIPPING NAME: Amines, liquids, corrosive, n.o.s. (Diethylenetriamine Mixture) , Marine Pollutant
HAZARD CLASS: 8
ID NUMBER: UN2735
PACKING GROUP: II
LABEL STATEMENT: Corrosive

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 Class B 3, Class D A, Class E

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: N/A

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.