

Section 1. Product and Company Identification

Product Name: Contour Apex Amine Base Part B
Supplier: CSNRI | 621 Lockhaven Drive. Houston, TX 77073 | +1 281.590.8491
Emergency Phone Number: 800.424.9300 (CHEMTREC)
+1 703.741.5970 (Outside the US)
Product Description: Hardener solution
Product Use: Intended to repair pipes
Chemical Name or Synonym: N/A

Section 2. Hazards Identification
Classification of the substance or mixture:

Acute oral toxicity – Category 4
Acute dermal toxicity – Category 4
Acute Inhalation Toxicity – Category 4
Eye irritation – Category 1
Skin corrosion irritation – Category 1A
Specific target organ toxicity, single exposure – Category 3

Label Elements:

Hazard Statements:

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled
H318 Causes serious eye damage.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation

Signal Word: Danger

Precautionary Statement:

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container through a waste management company authorized by the local government.

Section 3. Composition/ Information on Ingredients



Chemical Name	CAS-No	Weight %
2-Methyl-1,5-pentamethylenediamine	15520-10-2	15 – 65
1,2 diaminocyclohexane	694-83-7	7 – 15
Propylidynetrimechanol, propoxylated, reaction products with ammonia	39423-51-3	10 – 35

Section 4. First Aid Measures

First Aid Measures for Accidental:

Eye Contact: Get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Skin Contact: Get medical attention immediately. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Get medical attention immediately. Wash out mouth with water. Move exposed person to fresh air. Do not induce vomiting unless directed to do so by medical personnel. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person.

Inhalation: Get medical attention immediately. Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Most important symptoms/effects, acute and delayed: Corrosive effects. The product causes burns of eyes, skin and mucous membranes. Permanent eye damage including blindness could result.

Indication of immediate medical attention and special treatment needed: Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours. If evacuation of stomach contents is necessary, use method least likely to cause aspiration. This material, if aspirated into the lungs, may cause chemical pneumonitis.

Section 5. Fire Fighting Measures

Extinguishing Media: Carbon dioxide, foam, dry chemical, water spray, alcohol resistant foam.

Special Fire Fighting Procedures: Wear complete firefighting gear and self-contained breathing apparatus to protect against potential harmful and/or irritating fumes. Use water to keep fire exposed containers cool. Do not use a solid water stream as it may scatter and spread fire.

Special Protective Equipment for Fire-fighters: Use protective firefighting clothing and positive pressure self-contained breathing apparatus to protect against potential harmful and/or irritating fumes. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Unusual Fire and Explosion Hazard: Containers exposed to excessive heat may rupture; use water spray to keep fire-exposed containers cool.



Hazardous Decomposition Materials (Under Fire Conditions): Fire may produce irritating, corrosive and or toxic gases. Decomposition of this product may emit oxides of nitrogen and carbon monoxide.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the involved area. Avoid contact with eyes, skin and clothing. Use gloves and safety glasses. Prevent contamination of soil and water. Halt the flow of material as soon as practical; turn leaking containers leak side up to prevent the escape of liquid. Prevent from entering into drains, ditches, waterways by using sand, earth or appropriate barriers.

Cleanup and Disposal of Spill: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and Storage

Precautions for Safe Handling: Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for safe storage including any incompatibilities: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure Controls / Personal Protection

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate Engineering Controls: Ensure adequate ventilation through local exhaust.

Personal Protective Equipment:

Respiratory Protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eye / Face Protection: Wear tight-fitting chemical safety goggles. Refer to OSHA 29CFR1910.133 and European Standard EN166.

Skin Protection: Wear impervious clothing as necessary to protect against product contact. Refer to CFR1910.132 and CFR1910.136 for OSHA approved standards on protective clothing and footwear. Wear chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.



Additional protective measures: Wash thoroughly after handling. Avoid breathing vapors from heated material. Protective skin cream barriers can be applied to hands in addition to gloves for added protection. Prevent uncontrolled leakage or spillage if safe to do so. Do not allow product to enter drains or waterways.

Section 9. Physical and Chemical Properties

Physical Appearance:	Milky white.
Odor:	Pungent, Amine-like
Odor Threshold:	No data available
pH:	No data available
Flash Point:	167 °F (75 °C)
Melting Point Range:	No applicable
Boiling point:	No applicable
Evaporation rate (ether=1):	No data available
Flammability (solid, gas):	No data available
Flammability Limits in Air:	Not established for this product
Viscosity:	8.6 cPs at 75 °F (Rheometer Method)
Water Solubility:	Insoluble
Solubility in other solvents:	No data available
Vapor Pressure:	No data available
Vapor density (Air=1)	No data available
Relative Density:	0.91 at 75 °F
Partition coefficient (n-octanol/water):	No data available
Auto-ignition Temperature:	No data available
Decomposition Temperature:	No data available

Section 10. Stability and Reactivity

Reactivity: Reacts with epoxy

Chemical Stability: Stable under standard normal conditions.

Possibility of Hazardous reactions: None under normal processing. Polymerization will not occur under normal conditions.

Conditions to Avoid: Avoid heat, sparks, open flames, ignition sources, air; material is hygroscopic.

Incompatible Materials / Chemicals: Strong acids, bases, oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, nitrogen oxides.

Section 11. Toxicological Information

Numerical measures of toxicity:

For 2-Methyl-1,5-pentamethylenediamine:

Acute Oral Toxicity: LD50(rat): 1170 mg/kg

Acute Dermal Toxicity: LD50(rabbit): 1870 mg/kg

Inhalation Toxicity: LC50 (rat): 4.9 mg/l/1h

**For 1,2 diaminocyclohexane:**

Acute Oral Toxicity: LD50(rat): 4556 mg/kg

For Propylidynetrimethanol, propoxylated, reaction products with ammonia:

Acute Oral Toxicity: LD50(rat): 220 mg/kg

Acute Dermal Toxicity: LD50(rabbit): 562 mg/kg

Information on likely routes of exposure:

Ingestion: Harmful if swallowed. This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possible the digestive tract.

Inhalation: Inhalation of vapor is irritating to the respiratory system, may cause throat pain and cough.

Skin contact: Cause sever skin burns. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Eye contact: Causes serious eye damage. Corrosive to the eyes and may cause severe damage including blindness.

Symptoms related to the physical, chemical and toxicological effects:

Acute toxicity: Harmful by inhalation, in contact with skin and if swallowed. Causes severe burns.

Skin Corrosion/irritation: Exposure quickly causes a strong corrosive action upon all body tissue. Extremely corrosive and destructive to tissue.

Serious Eye Damage / Eye Irritation: Corrosive to the eyes and may cause severe damage including blindness.

Respiratory Sensitization: No classification due to the lack of data

Skin Sensitization: May cause sensitization by skin contact.

Germ Cell Mutagenicity: Did not show mutagenic effects in animal experiments.

Carcinogenicity: Not considered to be a carcinogen by OSHA/NTP/IARC/ACGIH.

Reproductive Toxicity: Classification criteria are not met based on available data.

Specific Target Organ Toxicity - single exposure (STOT-se): Respiratory tract irritation.

Specific Target Organ Toxicity - repeated exposure (STOT-re): Classification criteria are not met based on available data

Chronic Effects: Classification criteria are not met based on available data.

Section 12. Ecological Information

Ecotoxicity Effects:

Chemical Name	Aquatic Invertebrates	Toxicity to Fish	Bacteria
2-Methyl-1,5-pentamethylenediamine	EC50 (Daphnia, 48h): 19.8 mg/L	LC50: 1825 mg/L	EC50 (Algae, 72h): > 100 mh/L
Propylidynetrimethanol , propoxylated	-	LC50> 100 mg/L	-
1,2 diaminocyclohexane	-	LC50 (Golden orfe)(48- hr): 200 mg/l	-

General Effect: Harmful to aquatic life.

Persistence and degradability: Readily biodegradable.

Bioaccumulative potential: Significant environmental persistence and bioaccumulation would be expected.

Mobility in soil: None known.

Results of PBT and vPvB assessment: No data available

Other adverse effects: No other adverse effects are expected.



Section 13. Disposal Considerations

Waste treatment methods: Do not dump to ground, sewers or watercourses. Reuse uncontaminated material when possible. Consult local/regional disposal authorities; material may be burned in a chemical incinerator equipped with an afterburner and scrubber system. All methods of disposal must be in compliance with all applicable federal, state and local environmental control laws and regulations. Waste characterization according to RCRA guidelines and compliance with applicable laws are the responsibility solely of the waste generator.

Uncleaned packaging: Containers should be drained of all residual product prior to disposal. Do not reuse empty containers without commercial cleaning or reconditioning.

Section 14. Transport Information

IMDG

Shipping Name:	Aimine, liquid, corrosive, n.o.s.
Technical shipping name:	Amine.
U.N. number:	UN 2735.
Hazard class:	8.
Packing group:	I
EmS number:	F-E, S-B
Marine pollutant:	No

IATA

Proper Shipping Name:	Aimine, liquid, corrosive, n.o.s.
Technical shipping name:	Amine
UN-Number:	UN2735
Hazard Class:	8
Packing Group:	I
ERG code:	8L

DOT

Proper Shipping Name:	Aimine, liquid, corrosive, n.o.s.
Technical shipping name:	Amine
UN-Number:	UN2735
Hazard Class:	8
Packing Group:	I
Marine pollutant:	No

Section 15. Regulatory Information

US Federal Regulations: All components are on the US EPA TSCA Inventory List or are not required to be listed on the inventory.

SARA Title III Section 311/312 (40CFR370): No reportable components

SARA Title III Section 302): No reportable components

TSCA Inventory Status: Reported/included

Canadian DSL Status: Reported/included

Chemicals Known to the State of California to Cause Cancer or Reproductive Toxicity: None known to be in the product at levels requiring a warning.

**Section 16. Other Information****Key Legend Information:**

N/A – Not Applicable

ND – Not Determined

OSHA – Occupational Safety and Health Administration

NIOSH – National Institute for Occupational Safety and Health

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