



Safety Data Sheet

REMA TIP TOP

Product #: Remafix H, Compound B

SDS #: RTT-IND-032

Rev. # 5

Rev. Date: 5/08/2017

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Remafix H, Compound B

Chemical Family: Amine Solution

Product Use: Rubber Repair Kit (Two-Component)

Restrictions on Use: Use as directed by manufacturer

Manufacturer: Rema Tip Top - North America
240 Pegasus Avenue, 2nd floor
Northvale, NJ 07647
Phone: 201 256-8200

24-Hour Emergency Phone Number: North America: 800-424-9300 (CHEMTREC)
International: 703-527-3887 (CHEMTREC) Collect Calls Accepted

2. HAZARD IDENTIFICATION

GHS Classifications

Health Hazards

Acute Toxicity, Oral, Category 4

Acute Toxicity, Inhalation, Category 4

Skin Corrosion, Category 1B

Eye Damage, Category 1

Skin Sensitization, Category 1B

Specific Target Organ Systemic Toxicity, Single Exposure, Category 3, Respiratory Tract [Inhalation, Skin absorption, Ingestion]

Specific Target Organ Systemic Toxicity, Repeated Exposure, Category 2, Central Nervous System, Kidneys
Respiratory Tract [Inhalation, Skin absorption, Ingestion]

Physical Hazards

Corrosive to Metals, Category 1

Environmental Hazards

Chronic Aquatic Toxicity, Category 3

GHS-Labeling

Pictograms:



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Signal Word: Danger!

Hazard Statements

H290: May be corrosive to metals
H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage
H317: May cause an allergic skin reaction
H318: Causes serious eye damage
H332: Harmful if inhaled
H335: May cause respiratory irritation
H373: May cause damage to organs through prolonged or repeated exposure
H412: Harmful to aquatic life with long lasting effects

Precautionary Statements

Prevention:

P233: Keep container tightly closed.
P234: Keep only in original container.
P260: Do not breathe vapors.
P264: Wash skin and exposed areas thoroughly after handling.
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.

Response:

P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353: IF ON SKIN (hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340: IF INHALED: Remove victim 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. Get medical attention.
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P314: Get medical advice/attention if you feel unwell.
P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
P363: Wash contaminated clothing before reuse.
P390: Absorb spillage to prevent material damage.



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Storage:

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up

P406: Store in a corrosive resistant/container with a resistant inner liner.

Disposal:

P501: Dispose of contents/container in accordance with local, regional, and federal regulations

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical characterization

Amine Solution

Component*	CAS #	% By Wt.
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	5 - 10
Trimethylhexane, 1,6-diamine-	25513-64-8	1 - 5
Epoxy resin	25068-38-6	1-.5
Benzyl Alcohol	100-51-6	1 - 5
Quartz	1408-60-7	1 - 5

*The above listed components are OSHA hazardous materials which contribute to this products' GHS Hazard Categorization as prescribed in OSHA's Hazard Communication 29 CFR 1910.1200.

4. FIRST AID MEASURES

Inhalation

Symptoms & Effects: Nose, throat, and lung irritation, severe eye, skin, and respiratory tract burns, headache, nausea, dizziness, confusion, breathing difficulties, delayed lung injury, and respiratory failure with severe exposure

Measures: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing has stopped, begin artificial respiration. If breathing is difficult, administer oxygen. If symptoms persist, seek medical attention.

Skin Contact

Symptoms & Effects: Severe skin irritation, redness, burning, headache, nausea, dizziness, confusion, and breathing difficulties

Measures: Seek immediate medical attention. Immediately wash skin with plenty of water until medical attention is available. If medical care is not promptly available, continue to wash skin for one hour. Remove contaminated clothing and shoes while washing.

Note to Physicians: Application of corticosteroid cream has been effective in treating skin irritation.



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Eye Contact

Symptoms & Effects: Severe eye irritation, stinging, tearing, redness, swelling of the eyes, and blindness

Measures: Seek immediate medical attention. Immediately rinse eyes with water until medical attention is available. If medical care is not promptly available, continue to rinse eyes for one hour. Remove contact lenses after the initial few minutes and if easy to do so and resume rinsing. Rinse beneath eyelids by holding eyelids apart with clean fingers while rinsing.

Ingestion

Symptoms & Effects: Severe mouth and throat burns, headache, nausea, vomiting, abdominal pain, dizziness, confusion, breathing difficulties, danger of perforation of the esophagus and stomach, respiratory failure with severe cases of overexposure

Measures: Seek immediate medical attention. Do NOT induce vomiting. If the victim is drowsy or unconscious, do not give anything by mouth. Place individual on their left side and place their head down. Do not leave victim unattended.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Alcohol-resistant foam, Carbon dioxide, Dry chemical, Dry sand

Unsuitable Extinguishing Media: None identified

Hazardous Combustion Products: Ammonia, Nitric acid, Nitrogen oxides, Aldehydes, Carbon monoxide, Carbon dioxide

Protective Equipment for Fire-Fighters: Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

Precautions for Fire-Fighters: May generate ammonia gas, toxic nitrogen oxide gases, as well as carbon monoxide. Downwind personnel must be evacuated. Do not allow run-off from firefighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Protective Equipment: Recommended to wear chemical splash goggles & resistant gloves, such as polyvinyl alcohol-based gloves, and discard of gloves that show tears, pinholes, or signs of wear. Wear proper garments to prevent skin exposure, such as long-sleeves and pants.

Personal Precautions: Persons not wearing proper PPE should be excluded from the area of contamination until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources and pay attention to the spreading of gases, especially at ground level.



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Environmental Precautions: Do not allow discharge into drains, surface waters, or sanitary sewer system. Prevent spreading over a wide area by constructing a dike. Local authorities should be advised if significant spillages cannot be contained or if material discharges into drains or ground water.

Methods & Materials for Clean-Up: Contained spilled material with inert, non-combustible absorbent materials (e.g. sand, earth, diatomaceous earth, vermiculite). Transfer to a suitable container for disposal according to proper federal, state, and local regulations.

7. HANDLING AND STORAGE

Handling: Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, or solid), all hazard precautions given in this SDS must be observed. Use only in well-ventilated areas. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing impervious protective gloves. Hands and other exposed areas should be washed thoroughly with soap and water after contact, especially before eating and/or smoking. Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material.

Storage: Store in a well-ventilated area, away from heat and ignition sources as well as from incompatible materials (see below). Keep container tightly closed and store locked up. Store material in its' original container or in a corrosive resistant container. Keep away from food, drink, and animal foodstuffs.

Incompatible Materials: Sodium hypochlorite, Acids, Fatty acids, Peroxides, Oxidizing agents, Reactive metals, Amines, Bases, Reducing agents

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits :

Exposure limits have not been established for this product.

Respirable crystalline silica (quartz) has a TWA of 0.025 mg/m³

Engineering Controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposures below permissible exposure limits. Provide readily accessible eye wash stations and safety showers.

Occupational Exposure Controls: Ensure adequate ventilation, especially in confined areas. Consider all potential hazards of this material, applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting PPE. Ensure that eyewash stations and safety showers are proximal to the work location. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.



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Protective and Hygiene measures: Do not inhale vapors. Wash hands before breaks and immediately after handling product. When using, do not eat, drink, or smoke. In case of clothes contamination, remove and wash contaminated clothing before re-use.

Eye Protection: Recommended to wear a full face shield with tight fitting, chemical splash goggles underneath when there is potential for the exposure of the eyes to the liquid, vapor or mist. Have a suitable eye wash station or bottle nearby in case of splashing into the eyes.

Hand Protection: Recommended to wear suitable resistant gloves and discard of gloves that show tears, pinholes, or signs of wear. Suitable gloves will be based on product use and the period of use, and may include neoprene, butyl-rubber, nitrile rubber, etc.

Skin Protection: Recommended to wear impervious clothing, such as a full rubber suit or slicker suit as well as long-sleeved clothing, pants and proper foot covering in order to prevent direct skin contact with the product. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Respiratory Protection: A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White Paste

Odor: Amine / Fishy

Odor Threshold: No data available

pH: > 9

Melting/Freezing point: No data available

Boiling point/range: 402°F (206°C)

Flash point (Tag closed cup): > 212°F (> 100°C)

Evaporation rate: No data available

Flammability: Lower Limit: No data available **Upper Limit:** No data available

Vapor pressure: < 10.4 mmHg @ 70°F (21°C)

Relative vapor density: > 1 (Air = 1)

Density: 2.58 g/cm³ (21.5 lbs/gal) @ 67°F (20°C)

Solubility in water: Partially Soluble

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: No data available

Ignition temperature: No data available

Decomposition temperature: No data available

Viscosity (dynamic): No data available



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10. STABILITY AND REACTIVITY

Reactivity: No decomposition if stored and applied as directed.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Product will not undergo hazardous polymerization if storage and use guidelines are followed.

Conditions to Avoid: Heat, Flames, Sparks, Elevated temperatures, Other ignition sources, Reactive metals

Incompatible Materials: Acids, Peroxides, Amines, Bases, Reducing agents, Oxidizing agents, Reactive metals, Sodium hypochlorite

Hazardous decomposition products: Ammonia, Nitric acid, Nitrogen oxides, Aldehydes, Carbon monoxide, Carbon dioxide

11. TOXICOLOGICAL INFORMATION

Primary Routes of Exposure: Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion

Symptoms Related to Physical, Chemical and Toxicological Characteristics: Nose, throat, and lung irritation, severe respiratory tract burns, headache, nausea, dizziness, confusion, breathing difficulties, delayed lung injury, severe skin irritation, redness, burning of the skin, severe eye irritation, stinging, tearing, redness, swelling of the eyes, blindness, severe mouth and throat burns, vomiting, abdominal pain, danger of perforation of the esophagus and stomach, respiratory failure with severe cases of overexposure

Delayed and Immediate Effects & Chronic Effects from Exposure: With repeated exposure, the substance may have effects on the central nervous system, respiratory system, and kidneys. This product may result in skin sensitization or allergic skin reactions. This substance is suspected of causing mutagenic effects based on studies of laboratory animals.

Measures of Toxicity:

Acute toxicities are calculated based on component toxicities

Mixture: Acute Oral Toxicity: LD₅₀ Rat > 450 mg/kg

Acute Dermal Toxicity: No sufficient data available

Acute Inhalation Toxicity: LC₅₀ Rat > 10 mg/l

3-Aminomethyl-3,5,5-trimethylcyclohexylamine

Acute Oral Toxicity

CAS # 2855-13-2

LD₅₀ Rat: 1,030 mg/kg



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Benzyl Alcohol	CAS # 100-51-6
Acute Oral Toxicity	LD ₅₀ Rat: 1,230 mg/kg
Acute Dermal Toxicity	LD ₅₀ Rabbit: 2,000 mg/kg
Acute Inhalation Toxicity	LC ₅₀ Rat: > 4.178 mg/l

Carcinogen Claims:

Respirable crystalline silica (quartz) is classified as a carcinogen

12. ECOLOGICAL INFORMATION

Eco-toxicity: This substance is toxic to aquatic organisms with long lasting effects. It is strongly advised that this substance does not enter the environment. Local authorities should be advised if significant spillages cannot be contained or if material discharges into drains or ground water.

3-Aminomethyl-3,5,5-trimethylcyclohexylamine

	CAS # 2855-13-2
Toxicity to Fish	LC ₅₀ – 110 mg/l (Golden Orfe; 96 h)
Toxicity to Daphnia	EC ₅₀ – 17.4 mg/l (Water flea; 48 h)
Toxicity to Algae	EC ₅₀ – 37 mg/l (Green Algae; 72 h)

Benzyl Alcohol

	CAS # 100-51-6
Toxicity to Fish	LC ₅₀ – 10 mg/l (Bluegill; 96 h)
Toxicity to Fish	LC ₅₀ – 460 mg/l (Fathead Minnow; 96 h)
Toxicity to Daphnia	EC ₅₀ – 55 mg/l (Water flea; 24 h)
Toxicity to Algae	EC ₅₀ – 700 mg/l (Green Algae; 72 h)

Persistence & Degradability: No data available

Bio-accumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with Federal, State or Local regulations.
Contaminated packaging should be emptied as far as possible before disposal.



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14. TRANSPORT INFORMATION

DOT SHIPPING CLASSIFICATION:

UN NUMBER: UN3267

PROPER SHIPPING NAME: Corrosive liquid, basic, organic, N.O.S. (Isophorone diamine, Trimethylhexamethylenediamine)

TRANSPORTATION HAZARD CLASS: 8

PACKING GROUP: III

IMDG (Marine) SHIPPING CLASSIFICATION:

IMDG CODE: 8

UN NUMBER: UN3267

MARINE POLLUTANT: Yes

EmS: F-A; S-B

IMDG PACKING GROUP: III

HAZARD LABEL: 8

Description of the goods

CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Isophorone diamine, Trimethylhexamethylenediamine)

IATA (Air) SHIPPING CLASSIFICATION:

ICAO/IATA-DGR: 8

UN NUMBER: UN3267

HAZARD LABEL: 8

Description of the goods

Amines, Liquid, Corrosive, N.O.S. (Isophorone diamine, Trimethylhexamethylenediamine)

15. REGULATORY INFORMATION

All components of this product conform to the following national inventory requirements. US TSCA, EU EINECS and Canada DSL

SARA Title III

Section 302 – Extremely Hazardous Chemicals

The following ingredients are subject to the supplier notification requirements of Section 302 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 37 *None Listed*

Section 313 – Toxic Chemicals

The following ingredients are subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 37 *None Listed*

OTHER FEDERAL REGULATIONS

Components of this product are subject to RCRA Hazardous Waste requirements.



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Clean Air Act (CAA) Hazardous Air Pollutants requirements and OSHA Process Safety Management (PSM) high hazard requirements.

CANADIAN REGULATIONS

WHMIS Classification: Same as OSHA GHS Classification

STATE REGULATIONS

California Proposition 65

This product does not contain chemicals known to the state of California to cause cancer, birth defects or reproductive harm.

The components of this product may be included on the various state hazardous materials lists noted below.

California Hazardous Substances List/Permissible Exposure List

California Toxic air contaminants

Connecticut Permissible Exposure Limits

Delaware List of Chemicals and RQs

Hawaii Permissible Exposure Limits

Idaho Toxic Air Pollutants

Illinois Toxic Air Contaminants List

Louisiana Toxic Air Pollutants

Maine Hazardous Air Pollutants

Maryland Toxic Air Pollutants for Existing Sources

Massachusetts Hazardous Substances List

Michigan Permissible Exposure Limits

Minnesota Hazardous Substances

Minnesota Permissible Exposure Limits

Nebraska Hazardous Air Pollutants

New Jersey RTK Hazardous Substances List/TCPA Extremely Hazardous Substances List

New York List of Hazardous Substances

Ohio Toxic Air Contaminants

Oklahoma Toxic Air Contaminants

North Carolina TAP Emissions Rates Requiring a Permit

Pennsylvania Hazardous Substances List

Rhode Island Toxic Air Contaminants

Tennessee Permissible Exposure Limits

Vermont Hazardous Air Contaminants/Permissible Exposure Limits

Washington Permissible Exposure Limits for Airborne Contaminants.

West Virginia Toxic Air Pollutant List

Wisconsin hazardous Air Contaminants

Note: Entries under Section 15 are not intended to be all inclusive of Federal and State laws and regulations. Please consult the appropriate agencies for further clarification of any requirements.



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16. OTHER INFORMATION

This SDS conforms to the OSHA Hazard Communication Standard 1910.1200 published in the Federal Register March 26, 2012

MEDICAL EMERGENCIES:

Call CHEMTREC 24 hours a
Day for emergency information
800-424-9300

FOR ANY OTHER INFORMATION:

REMA TIP TOP - NORTH AMERICA
240 Pegasus Avenue, 2nd floor
NORTHVALE, NJ 07647
201-256-8200

NOTICE: REMA TIP TOP NORTH AMERICA believes that the information contained on this safety data sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily all-inclusive, nor fully adequate in every circumstance. Also, the suggestions should not be confused with, nor followed in violation of, applicable laws, regulations, rules or insurance requirements.

NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.