



Safety Data Sheet

REMA TIP TOP

Product #s: E40/15G, E40/30G

SDS #: RTT-IND-013

Rev. # 8

Rev. Date: 1/11/2023

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: E-40 Hardener

Chemical Family: Ester & Aromatic Isocyanate Solution

Product Use: Adhesive/Cement Hardener

Restrictions on Use: Use as directed by manufacturer

Distributed By: Rema Tip Top/North America, Inc
1500 Industrial Blvd.
Madison, GA 30650
Phone 706-752-4000

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

Specific Target Organ Systemic Toxicity, Single Exposure, Category 3

Physical Hazards

Flammable Liquid, Category 2

GHS-Labeling

Pictograms:



Signal Word: Danger!



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Hazard Statements

H225: Highly flammable liquid and vapor

H336: May cause drowsiness or dizziness

Precautionary Statements

Prevention:

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233: Keep container tightly closed.

P235: Keep cool.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting/equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P260: Do not breathe vapors.

P264: Wash skin and exposed areas thoroughly after handling.

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.

P285: In case of inadequate ventilation, wear respiratory protection.

Response:

P303 + P361 + P353: IF ON SKIN: Remove immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 + P341: 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.

P314: Get medical advice/attention if you feel unwell.

P337 + P313: If eye irritation persists: Get medical advice/attention.

P370 + P378: In case of fire: Use alcohol-resistant foam, carbon dioxide, or dry chemical for extinction.

P362: Take off contaminated clothing and wash before reuse.

Storage:

P403 + P233 + P235: Store in a well-ventilated place. Keep container tightly closed. Keep cool.

P405: Store locked up

Disposal:

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



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3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical characterization

Component*	CAS #	% By Wt.
Ethyl Acetate	141-78-6	60 - 75
Thionophosphoric acid-tris-(p-isocyanatophenyl)-	4151-51-3	15 - 30

4. FIRST AID MEASURES

Inhalation

Symptoms & Effects: Nausea, nose and throat irritation, dizziness, drowsiness, headache

Measures: Immediately 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. Seek immediate medical attention.

Skin Contact

Symptoms & Effects: Slight skin irritation

Measures: Wash skin with plenty of water. Remove contaminated clothing and shoes while washing. Wash contaminated clothing before reuse. If skin irritation persists, seek medical attention.

Eye Contact

Symptoms & Effects: Eye irritation, stinging, tearing, redness, eye swelling

Measures: Immediately rinse eyes with water for at least 15 minutes. 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. Seek immediate medical attention.

Ingestion

Symptoms & Effects: Stomach or intestinal irritation, nausea, vomiting, diarrhea, dizziness, drowsiness

Measures: Seek immediate medical attention. Do NOT induce vomiting unless directed to do so by a physician or medical personnel. If the victim is drowsy or unconscious, do not give anything by mouth. Do not give milk. 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, Water spray

Unsuitable Extinguishing Media: Water stream/jet

Hazardous Combustion Products: Hydrogen cyanide (HCN), Isocyanides (NCOs), Chlorinated hydrocarbons, Phosphorous oxides (PO_x), Nitrogen Oxides (NO_x), Carbon monoxide, Carbon dioxide



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

Precautions for Fire-Fighters: Water stream may be ineffective for extinguishment unless used under favorable conditions. This product is volatile and readily gives off flammable vapors which may travel along the ground or be moved by ventilation. Do not allow run-off from firefighting to enter drains or water courses. Use water spray to cool fully closed containers. Avoid spreading burning liquid with water used for cooling purposes.

6. ACCIDENTAL RELEASE MEASURES

Protective Equipment: Recommended to wear NIOSH approved respiratory apparatus, chemical splash goggles & resistant 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.

Environmental Precautions: Do not allow discharge into drains, surface waters, or sanitary sewer system. Prevent spreading over a wide area by constructing a dike or using oil barriers. 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: Immediately evacuate the spilled area and provide maximum ventilation. Only personnel equipped with proper respiratory, eye, and skin protection should be permitted in the area. Contain spilled material with inert, non-combustible absorbent materials such as sand, earth, diatomaceous earth, or vermiculite. Transfer to a suitable container for disposal according to proper federal, state, and local regulations. Notify the proper response units and agencies for any uncontained releases or spills.

7. HANDLING AND STORAGE

Handling: Containers of this material may be hazardous when emptied. Since emptied containers still contain product residues (vapor, liquid, or solid), all hazard precautions given in this SDS must be observed. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Avoid breathing vapors or mists of this product. Avoid eye and skin contact with this material. Skin and eye PPE should be worn at all times when handling this product. When adequate ventilation is not provided, respiratory PPE should also be used. Hands and other exposed areas should be washed thoroughly with soap and water after contact, especially before eating and/or smoking. Do not eat, drink or smoke when using this product.



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Storage: Store in a cool, dry, ventilated area, away from heat and ignition sources as well as from incompatible materials (see below). Keep container tightly closed and store locked up. Keep away from food, drink, and animal foodstuffs.

Incompatible Materials: Amines, Alcohols, Acids, Bases, Strong oxidizing agents, Halogenated compounds

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits :

Ethyl Acetate	CAS # 141-78-6		
OSHA	Permissible Exposure Limit (PEL)	400 ppm (1,400 mg/m ³)	
ACGIH	Time Weighted Average (TWA)	400 ppm (1,400 mg/m ³)	
NIOSH	Recommended Exposure Limit (REL)	400 ppm (1,400 mg/m ³)	

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.

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 tight fitting, chemical splash goggles 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 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.



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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: Tan to Yellow Liquid

Odor: Ester-like

Odor Threshold: No data available

pH: No data available

Melting/Freezing point: No data available

Boiling Point/ Range: 170°F (77°C)

Flash point (Tag closed cup): 25°F (-4°C)

Evaporation rate: No data available

Flammability: Lower Limit: 1.3% (V) **Upper Limit:** 11.5% (V)

Vapor pressure: 97 hPa @ 68°F (20°C)

Relative vapor density: No data available

Density: 1.0 g/cm³ (8.3 lbs/gal) @ 68°F (20°C)

Solubility in water: Insoluble

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

Auto-ignition temperature: No data available

Ignition temperature: 860°F (460°C)

Decomposition temperature: No data available

Viscosity (dynamic): 3 mPa*s @ 68°F (20°C)

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 or other hazardous reactions if storage and use directions are followed.

Conditions to Avoid: Elevated temperatures, Ignition sources, Incompatible materials (see below)

Incompatible Materials: Amines, Alcohols, Acids, Bases, Strong oxidizing agents, Halogenated compounds

Hazardous decomposition products: Hydrogen cyanide (HCN), Isocyanides (NCOs), Chlorinated hydrocarbons, Phosphorous oxides (PO_x), Nitrogen Oxides (NO_x), Carbon monoxide, Carbon dioxide



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11. TOXICOLOGICAL INFORMATION

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

Symptoms Related to Physical, Chemical and Toxicological Characteristics: Contains isocyanate, may product allergic reaction Nausea, nose and throat irritation, dizziness, drowsiness, headache, slight skin irritation, eye irritation, stinging, tearing, redness, eye swelling.

Measures of Toxicity:

Acute toxicities are calculated based on component toxicities
Mixture: Acute Oral Toxicity: LD₅₀ Rat: > 4,200 mg/kg
Acute Dermal Toxicity: LD₅₀ Rabbit: > 2,000 mg/kg
Acute Inhalation Toxicity: LC₅₀ Rat: > 20 mg/l

Ethyl Acetate	CAS # 141-78-6
Acute Oral Toxicity	LD ₅₀ Rat: 5,620 mg/kg
Acute Dermal Toxicity	LD ₅₀ Rabbit: > 180,000 mg/kg
Acute Inhalation Toxicity	LC ₅₀ Rat: 16,000 mg/l (6 h)

Carcinogen Claims:

OSHA: **None**, International Agency for Research on Cancer (IARC): **None**
ACGIH: **None**, National Toxicology Program (NTP) Report on Carcinogens: **None**

12. ECOLOGICAL INFORMATION

Eco-toxicity: This substance is not expected to be harmful to aquatic organisms; however it is still strongly advised that this substance does not enter the environment.

Ethyl Acetate	CAS # 141-78-6
Toxicity to Fish	LC ₅₀ – 220 mg/l (Fathead Minnow; 96 h)
Toxicity to Fish	LC ₅₀ – 350 mg/l (Rainbow Trout; 96 h)
Toxicity to Daphnia	LC ₅₀ – 154 mg/l (Water Flea; 48 h)
Toxicity to Algae	EC ₅₀ – 4,300 mg/l (Algae; 24 h)

Persistence & Degradability: No data available

Bio-accumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available



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13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

DOT SHIPPING CLASSIFICATION:

UN NUMBER: UN1133
PROPER SHIPPING NAME: Adhesives, containing a flammable liquid (Ethyl Acetate)
TRANSPORTATION HAZARD CLASS: 3
PACKING GROUP: II
HAZARD LABEL: 3

IMDG (Marine) SHIPPING CLASSIFICATION:

IMDG CODE: 3
UN NUMBER: UN1133
IMDG PACKING GROUP: II
HAZARD LABEL: 3
Description of the goods: ADHESIVES, CONTAINING A FLAMMABLE LIQUID (ETHYL ACETATE)

IATA (Air) SHIPPING CLASSIFICATION:

ICAO/IATA-DGR: 3
UN NUMBER: UN1133
HAZARD LABEL: 3
Description of the goods: Adhesives, containing a flammable liquid (Ethyl Acetate)

15. REGULATORY INFORMATION

All components of this product conform to the following inventories 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

Ethyl acetate is 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; RQ 5000



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OTHER FEDERAL REGULATIONS

Components of this product are subject to RCRA Hazardous Waste requirements. Clean Air Act (CAA) Hazardous Air Pollutants requirements and OSHA Process Safety Management (PSM)

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, INC
300 Tice Blvd, Suite 250
WOODCLIFF LAKE, NJ 07677
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.