



Safety Data Sheet

REMA Tip Top

Product #: HS-T

SDS #: RTT-IND-027

Rev. # 5

Rev. Date: 11/04/2014

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Tip Top Heating Solution T

Chemical Family: Polymer in Chlorinated Solvent Solution

Product Use: Adhesive

Restrictions on Use: Use as directed by manufacturer

Manufacturer: Rema Tip Top - North America
119 Rockland Ave.
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

Eye Irritation, Category 2A

Skin Sensitization, Category 1B

Germ Cell Mutagenicity, Category 2

Carcinogenicity, Category 1B

Reproductive Toxicity, Category 2

Specific Target Organ Systemic Toxicity, Single Exposure, Category 2, Central Nervous System, Liver, Kidney [Inhalation, Ingestion, Skin absorption]

Specific Target Organ Systemic Toxicity, Repeated Exposure, Category 1, Central Nervous System, Heart, Lungs, Liver [Inhalation, Skin absorption, Ingestion]

Environmental Hazards

Chronic Aquatic Toxicity, Category 3

GHS-Labeling

Pictograms:





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Signal Word: Danger!

Hazard Statements

H317: May cause an allergic skin reaction
H319: Causes serious eye irritation
H341: Suspected of causing genetic defects
H350: May cause cancer
H361: Suspected of damaging fertility or the unborn child
H371: May cause damage to the Central Nervous System, Liver, and Kidney
H373: May cause damage to organs through prolonged or repeated exposure
H412: Harmful to aquatic life with long lasting effects

Precautionary Statements

Prevention:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe vapours.
P261: Avoid breathing vapours.
P263: Avoid contact during pregnancy/while nursing.
P264: Wash skin and exposed areas thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
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.
P281: Use personal protective equipment as required.

Response:

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
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.
P309 + P311: IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P314: Get medical advice/attention if you feel unwell.
P321: Specific treatment found in supplemental first aid instruction of this SDS (Section 4).
P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313: If eye irritation persists: Get medical advice/attention.
P363: Wash contaminated clothing before reuse.

Storage:

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

Polymer in Chlorinated Solvent Solution

Component*	CAS #	% By Wt.
Trichloroethylene, TCE	79-01-6	85 – 100
Gum Rosin	8050-09-7	< 1
Zinc Oxide	1314-13-2	< 1
Lead Monoxide	1317-36-8	< 1

*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: Stomach or intestinal irritation, nausea, irritation of the nose and airways, central nervous system depression, dizziness, drowsiness, weakness, fatigue, headache, unconsciousness, lack of coordination, confusion, irregular heartbeat, cardiac arrest, death

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: Skin irritation, redness, burning, drying, defatting, dermatitis, and other skin damage

Measures: Immediately wash skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes while washing. If skin irritation or rash occurs, seek medical advice/attention. Wash contaminated clothing before reuse. If skin irritation persists, seek medical attention.

Eye Contact

Symptoms & Effects: Eye irritation, stinging, tearing, redness, and swelling of the eyes

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, irritation of the throat, central nervous system depression, dizziness, drowsiness, weakness, fatigue, headache, unconsciousness, lack of coordination, and confusion. Swallowing large amounts may cause for material to enter the lungs during swallowing or vomiting, leading to lung inflammation and other lung damages.



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Measures: Seek immediate medical attention. Do NOT induce vomiting. If the victim is drowsy or unconscious, do not give anything by mouth. If victim is conscious, give at least 3-4 glasses of water. Place individual on their left side and place their head down. Do not leave victim unattended.

5. FIRE FIGHTING MEASURES

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

Unsuitable Extinguishing Media: None Identified

Hazardous Combustion Products: Hydrogen chloride, Phosgene traces, 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: This product poses a slight fire hazard. Full-face, self-contained breathing apparatus should be worn at all times. Cool storage containers with water, if exposed to fire.

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. Construct a dike to contain spill. Contain spilled material with inert, non-combustible absorbent materials such as sand, earth, diatomaceous earth, or vermiculite. After all visible traces have been removed, thoroughly wet vacuum the area. 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.



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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. 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.

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: Strong bases, Oxidizing agents, Magnesium, Barium, Lithium, Titanium

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits :

Exposure limits have not been established for this product.

Trichloroethylene, TCE	CAS # 79-01-6		
	OSHA	Permissible Exposure Limit (PEL)	100 ppm
	ACGIH	Time Weighted Average (TWA)	10 ppm
	NIOSH	Recommended Exposure Limit (REL)	25 ppm

Zinc Oxide	CAS # 1314-13-2		
	OSHA	Permissible Exposure Limit (PEL)	5 mg/m ³
	ACGIH	Time Weighted Average (TWA)	2 mg/m ³
	NIOSH	Recommended Exposure Limit (REL)	5 mg/m ³

Lead Monoxide	CAS # 1317-36-8		
	ACGIH	Time Weighted Average (TWA)	0.05 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.



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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 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.

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: Black Liquid

Odor: Sweet; Ether-like

Odor Threshold: 28 ppm

pH: No data available

Melting/Freezing point: No data available

Boiling Point/ Range: 188°F (86.7°C)

Flash point (Tag closed cup): > 200°F (> 93.3°C)

Evaporation rate: 0.28 Ethyl Ether

Flammability: Lower Limit: 7.9% (V) **Upper Limit:** 52.0% (V)

Vapor pressure: 77 hPa @ 68°F (20°C)

Relative vapor density: > 4 (Air = 1)

Density: 1.45 g/cm³ (12.1 lbs/gal) @ 77°F (25°C)

Solubility in water: Immiscible

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

Auto-ignition temperature: No data available

Ignition temperature: 770°F (410°C)

Decomposition temperature: No data available



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Viscosity (dynamic): No data available

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, Incompatible materials (see below)

Incompatible Materials: Strong bases, Oxidizing agents, Magnesium, Barium, Lithium, Titanium

Hazardous decomposition products: Hydrogen chloride, Phosgene traces, Carbon monoxide, Carbon dioxide

11. TOXICOLOGICAL INFORMATION

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

Symptoms Related to Physical, Chemical and Toxicological Characteristics: Stomach or intestinal irritation, nausea, irritation of the nose and airways, central nervous system depression, dizziness, drowsiness, weakness, fatigue, headache, unconsciousness, lack of coordination, confusion, skin irritation, redness, burning, drying, defatting, dermatitis, other skin damage, eye irritation, stinging, tearing, redness, swelling of the eyes, irregular heartbeat, cardiac arrest, and death. Swallowing large amounts may cause for material to enter the lungs during swallowing or vomiting, leading to lung inflammation and other lung damages.

Delayed and Immediate Effects & Chronic Effects from Exposure: With repeated exposure, the substance may have effects on the central nervous system, respiratory system, heart, lungs and liver. This substance is suspected of having mutagenic effects based on laboratory animal testing alone. This substance is suspected of causing reproductive harm, damaging fertility or harming the unborn child. This substance is a potential carcinogen to humans as outlined by OSHA, IARC, ACGIH and the NTP (see below).

Measures of Toxicity:

Acute toxicities are calculated based on component toxicities

Mixture: Acute Oral Toxicity: LD₅₀ Rat: > 5,000 mg/kg

Acute Dermal Toxicity: LD₅₀ Rabbit: > 2,000 mg/kg

Acute Inhalation Toxicity: No sufficient data available

Trichloroethylene, TCE

Acute Oral Toxicity

Acute Dermal Toxicity

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CAS # 79-01-6

LD₅₀ Rat: 5,560 mg/kg

LD₅₀ Rabbit: > 2,000 mg/kg

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Acute Inhalation Toxicity LC₅₀ Mouse: 8,450 ppmV

Gum Rosin

Acute Oral Toxicity

Acute Inhalation Toxicity

CAS # 8050-09-7

LD₅₀ Rat: 7,600 mg/kg

LC₅₀ Mouse: 110 mg/m³

Zinc Oxide

Acute Oral Toxicity

Acute Inhalation Toxicity

CAS # 1314-13-2

LD₅₀ Mouse: 7,950 mg/kg

LC₅₀ Mouse: 2,500 mg/m³

Carcinogen Claims:

OSHA: **Yes; 1B**

International Agency for Research on Cancer (IARC): **Yes; 1 [Carcinogenic to Humans]**

ACGIH: **Yes; A2 [Suspected Carcinogen]**

National Toxicology Program (NTP) Report on Carcinogens: **Yes; II [Reasonably Anticipated]**

12. ECOLOGICAL INFORMATION

Eco-toxicity: This substance is harmful 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.

Trichloroethylene, TCE

Toxicity to Fish LC₅₀ – 41 mg/l (Fathead Minnow; 96 h)
Toxicity to Daphnia EC₅₀ – 18 mg/l (Water flea; 48 h)
Toxicity to Algae IC₅₀ - 175 mg/l (Green Algae; 96 h)

CAS # 79-01-6

Zinc Oxide

Toxicity to Fish LC₅₀ – 1.1 mg/l (Rainbow Trout; 96 h)
Toxicity to Daphnia EC₅₀ – 0.098 mg/l (Water Flea; 48 h)

CAS # 1314-13-2

Lead Monoxide

Toxicity to Fish LC₅₀ – 0.28 mg/l (Fathead Minnow; 96 h)
Toxicity to Daphnia EC₅₀ – 0.13 mg/l (Water Flea; 48 h)

CAS # 1317-36-8

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.

This product contains a component identified as hazardous under 40 CFR 261.24. This product may be regulated, have exposure limits or other information identified as the following: F025-Hazardous Wastes. Dispose of in accordance with 40 CFR 262 for concentrations at or above the regulatory level (0.5 mg/l).

Component	CAS #	Weight %	Waste Number	Regulatory Level
Trichloroethylene, TCE	79-01-6	65 – 80	1,000	0.5 mg/l

14. TRANSPORT INFORMATION

DOT SHIPPING CLASSIFICATION:

UN NUMBER: UN1710
PROPER SHIPPING NAME: Trichloroethylene Mixture
TRANSPORTATION HAZARD CLASS: 6.1
PACKING GROUP: III
HAZARD LABEL: 6.1

IMDG (Marine) SHIPPING CLASSIFICATION:

IMDG CODE: 6.1
UN NUMBER: UN1710
MARINE POLLUTANT: Yes
EmS: F-A; S-A
IMDG PACKING GROUP: III
HAZARD LABEL: 6.1

Description of the goods

TRICHLOROETHYLENE MIXTURE

IATA (Air) SHIPPING CLASSIFICATION:

ICAO/IATA-DGR: 6.1
UN NUMBER: UN1710
HAZARD LABEL: 6.1

Description of the goods

Trichloroethylene Mixture

15. REGULATORY INFORMATION

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



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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

Component	CAS #	Weight %	CERCLA RQ
Trichloroethylene	79-01-6	65 – 80	100

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) high hazard requirements.

CANADIAN REGULATIONS

WHMIS Classification: D1B, D2A, D2B (Based on components)

STATE REGULATIONS

California Proposition 65

WARNING: This product contains chemicals known to the state of California to cause cancer and reproductive harm.

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

California Hazardous Substances List
Delaware Air Quality Management List
Idaho Air Pollutants List
Illinois Toxic Air Contaminants List
Maine Hazardous Air Pollutants List
Massachusetts Hazardous Substances List
Michigan Critical Materials List
Minnesota Hazardous Substances List
New Jersey RTK Hazardous Substances List
New Jersey TCPA Extremely Hazardous Substances List
New York List of Hazardous Substances
North Carolina Toxic Air Contaminants List
Pennsylvania Hazardous Substances List
Washington Permissible Exposure Air Contaminants List
West Virginia Air Toxic Pollutants List



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Wisconsin Hazardous Air Contaminants List

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.

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
119 Rockland Ave.
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.

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