



Material Safety Data Sheet

REMA TIP TOP

Product #'s: 5179015

MSDS #: RTT-IND-039

Rev. # 2

Rev. Date: 1/15/2011

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Name: Tip Top T2 Solution B4, CFC Free

Manufacturer: REMA TIP TOP/NO. AMERICA, 119 Rockland Avenue, Northvale, NJ 07647

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

2. PRODUCT INGREDIENTS

<u>CHEMICAL NAME:</u>	<u>CAS NUMBER:</u>	<u>% RANGE:</u>	<u>OSHA PEL:</u>
Ethyl Acetate	144-78-6	50 - 60%	400 ppm TWA
Naphtha (Petroleum)	92062-15-2	20 - 30%	500 ppm TWA

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: F025-Hazardous wastes.

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication). The balance of ingredients not rated as hazardous as defined in 29 CFR 1910.1200. This product is regulated under the Canadian Controlled Products Regulations.

The balance of ingredients not rated as hazardous as defined in 29 CFR 1910.1200.

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS:

DANGER-EXTREMELY FLAMMABLE. Liquid and vapors are extremely flammable. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Vapors may form explosive mixture with air. This product is irritating to the eyes, respiratory system and skin. Ingestion or inhalation of this product may result in central nervous system effects including headache, sleepiness, dizziness, slurred speech and blurred vision. Repeated exposure may cause skin dryness or cracking. Product can be aspirated into lungs, leading to chemical pneumonitis.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Appearance and odor: Blue liquid with an ester-like odor.

EYE: Vapors irritate the eyes. Contact with liquid or mist will irritate the eyes. Symptoms may include itching, burning, redness and tearing.

SKIN: This product can cause irritation to the skin. Repeated exposure may cause skin dryness or cracking.



Material Safety Data Sheet

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INGESTION: Ingestion of this product can result in central nervous system effects including headache, sleepiness, dizziness, slurred speech and blurred vision. If ingested, product is an aspiration hazard.

INHALATION: This product may cause irritation to the respiratory system. Inhalation of this product can cause central nervous system effects including headache, dizziness, blurred vision, nausea and vomiting. Product is an aspiration hazard.

4. FIRST AID

EYES: In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. After flushing eyes, call a physician.

SKIN: For skin contact flush with large amounts of water. Immediately take off all contaminated clothing. Wash contaminated clothing before reuse. If irritation persists, get medical attention.

INGESTION: If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.

INHALATION: If inhaled excessively, immediately remove the affected person to fresh air. Give artificial respiration if not breathing. Call a physician immediately.

NOTES TO PHYSICIAN: Product is an aspiration hazard. Treat affected person appropriately.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point: <-18°C (-0.4°F)
Flash Point Method: Not available
Lower Flammability Limit: 0.6%
Upper Flammability Limit: Not available
Auto Ignition Temperature: 460°C (860°F)

NFPA Ratings: Health: 1 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon.

EXTINGUISHING MEDIA: Dry chemical, alcohol foam, carbon dioxide, water fog.

FIRE FIGHTING INSTRUCTIONS: Serious fire hazard. Liquid and vapors are highly flammable. Vapors may form explosive mixture with air. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: Firefighters should wear full-face, self contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products. Cool containers with water spray, if this can be done without risk.



Material Safety Data Sheet

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6. ACCIDENTAL RELEASE MEASURES

CONTAINMENT PROCEDURES: Stop the flow of material, if this is without risk. Remove sources of ignition. Extinguish all flames in the vicinity. Block any potential routes to water systems. Reduce vapors with water spray.

CLEAN-UP PROCEDURES: Eliminate ignition sources including sources of electrical, static or frictional sparks. Ventilate the contaminated area. Do not allow the spilled product to enter public drainage system or open water courses. Wear appropriate protective equipment and clothing during clean-up. Absorb spill with inert material. Shovel material into appropriate container for disposal. Use non-sparking tools.

EVACUATION PROCEDURES: Isolate area. Keep unnecessary personnel away.

SPECIAL PROCEDURES: Wear appropriate personal protective equipment. Avoid skin contact and inhalation of vapors during disposal of spills. Do not allow product to enter sewer or waterways.

7. HANDLING & STORAGE

HANDLING: Keep this product from heat, sparks, or open flame. Use non-sparking tools when opening or closing containers. Use only explosion-proof equipment. Avoid getting this material into contact with your skin and eyes. Avoid breathing vapors or mists of this product. Use this product with adequate ventilation. Bond and ground all containers when transferring chemical.

STORAGE: Eliminate all sources of ignition. Keep the container tightly closed and in a cool, well-ventilated place. Use only explosion-proof equipment. Store away from incompatible materials. Do not pressurize, cut, heat or weld containers. Empty product containers may contain product residue. Do not reuse empty containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use local exhaust ventilation. Ventilation should effectively remove and prevent buildup of any vapor or mist generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION: Wear chemical goggles; face shield (if splashing is possible).

SKIN PROTECTION: Use impervious gloves. Use of an impervious apron is recommended.

RESPIRATORY PROTECTION: If ventilation is not sufficient to effectively prevent buildup of vapors, appropriate NIOSH/MSHA respiratory protection must be provided



Material Safety Data Sheet

REMA TIP TOP

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Rev. Date: 1/15/2011

EXPOSURE GUIDELINE(s): Component Exposure Limits

REMA TIP/TOP USA recommends that its customers minimize employee exposure. REMA therefore suggests that its customers consider adopting the lower of the current OSHA PEL or the ACGIH TLV's for the purpose of evaluating employee exposures. The TLV's recommended by the ACGIH have been updated on a continuing basis.

Ethylacetate (141-78-6)

ACGIH: 400 ppm TWA
OSHA: 400 ppm TWA; 1400 mg/m³ TWA
NIOSH: 400 ppm TWA; 1400 mg/m³ TWA

Component Exposure Limits

The following Provincial Exposure Limits apply for this product's components.

Ethylacetate (141-78-6)

Alberta: 400 ppm TWA; 1440 mg/m³ TWA
British Columbia: 150 ppm TWA
Manitoba: 400 ppm TWA; 1400 mg/m³ TWA
New Brunswick: 400 ppm TWA; 1440 mg/m³ TWA
NW Territories: 400 ppm TWA; 1441 mg/m³ TWA
500 ppm STEL; 1801 mg/m³ STEL

Nova Scotia: 400 ppm TWA
Nunavut: 400 ppm TWA; 1441 mg/m³ TWA
500 ppm STEL; 1801 mg/m³ STEL
Ontario: 400 ppm TWAEV; 1440 mg/m³ TWAEV
Quebec: 400 ppm TWAEV; 1400 mg/m³ TWAEV
Saskatchewan: 1440 mg/m³ TWA; 400 ppm TWA
1800 mg/m³ STEL; 500 ppm STEL
Yukon: 400 ppm TWA; 1400 mg/m³ TWA
400 ppm STEL; 1400 mg/m³ STEL

9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE: Black Liquid

ODOR: Ester-like **ODOR THRESHOLD:** Not available

BOILING POINT: ~76°C (169°F)

SOLUBILITY IN WATER: Immiscible

SPECIFIC GRAVITY: 0.90 @ 20°C

VAPOR PRESSURE: Not available

% VOLATILE BY VOLUME: <90%



Material Safety Data Sheet

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10. STABILITY & REACTIVITY

INCOMPATIBILITY WITH OTHER MATERIALS: Oxidizing agents, nitrous acid and other nitrosating agents. Exposure to excessive heat or nitrosating agents may release trace amounts of nitrosamines.

HAZARDOUS POLYMERIZATION: Will not occur.

DECOMPOSITION PRODUCTS: Oxides of Carbon and Sulfur Oxides.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Inhalation or ingestion of this product may result in central nervous system effects including headache, sleepiness, dizziness, slurred speech and blurred vision. Repeated exposure may cause skin dryness or cracking. Irritating to eyes, respiratory system and skin. Product can be aspirated into lungs, leading to chemical pneumonitis.

CHRONIC TOXICITY

Prolonged contact may cause damage to the liver, lungs, kidney and heart.

CARCINOGENICITY

No information available for the product.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

12. ECOLOGICAL INFORMATION

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component Analysis - Ecotoxicity - Aquatic Toxicity

Ethylacetate (141-78-6)

Test & Species

96 Hr LC50 fathead minnow

230 mg/L

Conditions

flow-through

13. DISPOSAL CONSIDERATIONS

DISPOSAL: Do not allow this material to drain into sewers/water supplies. Packaging that cannot be cleaned should be disposed of like the product. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

UNUSED & UNCONTAMINATED PRODUCT: Component Waste Numbers

Ethylacetate (141-78-6)

RCRA:

waste number U112 (Ignitable waste)



Material Safety Data Sheet

REMA TIP TOP

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Rev. Date: 1/15/2011

If discarded, this product is considered a RCRA ignitable waste, D001.

14. TRANSPORT INFORMATION

US DOT Information

Shipping Name: Adhesives (Contains: Ethyl Acetate & Solvent Naphtha)

UN/NA #: UN1133 **Hazard Class:** 3 **Packing Group:** II

Required Label(s): Flammable Liquid

Additional Info.: PLACARD (WHEN REQUIRED): FLAMMABLE LIQUID, 3

EXCEPTIONS: DOT Paragraphs 172.102, 173.150, 173.173, & 173.242.

ALTERNATE SHIPPING ARRANGEMENTS: Based on package or shipping container size, this product may be shipped as a, "Limited Quantity", or, renamed, "Consumer Commodity" and reclassified as, "ORM-D" Material.

TDG Information

Shipping Name: Adhesives (Contains: Ethyl Acetate & Solvent Naphtha)

UN/NA #: UN1133 **Hazard Class:** 3 **Packing Group:** II

Required Label(s): Flammable Liquid

IMDG Information

Additional Info.: EmS = 3-05

Exceptions: Exceptions: For package and container size when Shipped as Limited Quantity under packing instruction P001, Provision PP1 and Chapter 3.4 (Limited Quantity).

IATA Information

Additional Info.: 3

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

SARA 313 INFORMATION: Component Analysis

None of this products components are listed under SARA Section 313 (40 CFR 372.65).

SARA HAZARD CATEGORY:

Acute Health: Yes

Chronic Health: Yes

Fire: Yes

Pressure: No

Reactive: No



Material Safety Data Sheet

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COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA):

Component Analysis

This material contains one or more of the following chemicals required to be identified under CERCLA (40 CFR 302.4).

Ethylacetate (141-78-6)

CERCLA:

5000 lb final RQ; 2270 kg final RQ

TOXIC SUBSTANCES CONTROL ACT (TSCA): Components of this product have been checked against the non-confidential TSCA inventory by CAS Registry Number. Components not identified on this non-confidential inventory are exempt from listing (i.e. as polymers) or are listed on the confidential inventory as declared by the supplier.

Component	CAS #	TSCA	CAN	EEC
Ethylacetate	141-78-6	Yes	DSL	EINECS

STATE RIGHT-TO-KNOW:

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Ethylacetate	141-78-6	Yes	Yes	Yes	Yes	Yes	Yes

This product is not a consumer product. This product may not be legally authorized for consumer use or sale in a state that has adopted the OTC Model Rule, or in California pursuant to the Consumer Products Regulation of the California Air Resources Board, or in states with similar laws. Please check federal, state, and local air control laws for guidance.

CANADIAN REGULATIONS

WHMIS INFORMATION:

WHMIS Classification:

Class B2- Flammable Liquid

Class D2B- Material Causing Other Toxic Effects

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Ethylacetate	141-78-6	1 % (English Item 689, French Item 17)

EUROPE:

Component Analysis

Component	CAS#	EINECS#
Ethyl Acetate	141-78-6	205-500-4



Material Safety Data Sheet

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Rev. # 2

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16. OTHER INFORMATION

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

NFPA Ratings: Health: 1 Fire: 3 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

The product is a black liquid with an ester like odor. This product is harmful by inhalation, when in contact with the skin, eyes and if it is swallowed. Over-exposure may cause anemia with leukocytosis (transient increase in white blood cell count) and damage to the liver and kidneys.

EYE: This product may cause irritation to the eyes. Contact may cause stinging, watering, redness, swelling, and eye damage. Vapors may also produce eye irritation.

SKIN: This product may cause irritation to the skin. Prolonged and/or repeated skin contact with this product may cause irritation, defatting of skin and dermatitis.

INGESTION: Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea.

INHALATION: This product may be harmful by inhalation. Inhalation can cause irritation of mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. High concentrations may cause lung damage. An irritant to the nose, throat, and upper respiratory tract. Exposure to high concentrations may have a narcotic effect and may cause liver and kidney damage.

MEDICAL EMERGENCIES:

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

FOR ANY OTHER INFORMATION:

REMA TIP TOP/NO. AMERICA
119 Rockland Ave.
NORTHVALE, NJ 07647
201-768-8100

NOTICE: REMA TIP/TOP USA believes that the information contained on this material 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, EXPRESS OR IMPLIED, OF MERCHANTABILITY,
FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.**