



Material Safety Data Sheet

REMA TIP TOP

Product #'s: 5252901

MSDS #: RTT-IND-021

Rev. # 2

Rev. Date: 1/15/2011

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Name: Tip Top Adhesive Primer R

Product Use: Primer coat.

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>
Xylenes (o-, m-, p- isomers)	1330-20-7	25-35	100 ppm TWA; 435 mg/m ³ TWA
Polymethylene polyphenylene isocyanate	9016-87-9	15-25	Not Established
Petroleum naphtha, light aromatic	64742-95-6	15-25	Not Established
Ethyl benzene	100-41-4	5-10	100 ppm TWA; 435 mg/m ³ TWA

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

This product is regulated under the Canadian Controlled Products Regulations.

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS:

The product is a brown liquid with an aromatic odor. Highly flammable. This product is harmful by inhalation, when in contact with the skin, eyes and if it is swallowed. Probable cancer hazard. Overexposure may cause damage to the liver and kidneys. Aspiration hazard. May cause sensitisation by inhalation and skin contact. Lung damage may occur if aspirated into the lungs and may be fatal. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

EYE: This product may cause irritation to the eyes. Symptoms may include burning, redness, and tearing.

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

INGESTION: Aspiration hazard. Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. May produce central nervous system depression. If aspirated (liquid enters the lung), the product may be rapidly absorbed through the lungs and can result in chemical pneumonitis and pulmonary edema/hemorrhage.

INHALATION: This product may be harmful by inhalation. May cause sensitisation by inhalation. Overexposure can cause central nervous system depression with symptoms of headache, dizziness, stupor, loss of consciousness or death. Exposure to high concentrations can cause irregular heartbeat, cardiac arrest and death. Overexposure can result in adverse effects on the liver, nervous system and other internal organs.



Material Safety Data Sheet

REMA TIP TOP

Product #'s: 5252901

MSDS #: RTT-IND-021

Rev. # 2

Rev. Date: 1/15/2011

4. FIRST AID

EYES: Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.

SKIN: For skin contact flush with large amounts of water while removing contaminated clothing. Wash affected area with mild soap and water. If irritation persists, get medical attention. Wash contaminated clothing before reuse. Contaminated leather articles, including shoes, that cannot be decontaminated should be discarded.

INGESTION: Do not induce vomiting. Call a physician immediately. Aspiration hazard.

INHALATION: If inhaled, immediately remove the affected person to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Seek medical attention.

NOTE TO PHYSICIAN: Chlorinated hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur. Careful consideration of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point: 84.2°F (29°C)

Method Used: Not Available

Flammability Classification: Class IC

HAZARDOUS COMBUSTION PRODUCTS: Hazardous combustion products may include and are not limited to oxides of nitrogen, carbon monoxide, and carbon dioxide.

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical and foam. Do not use water.

FIRE FIGHTING INSTRUCTIONS: DANGER, FLAMMABLE! Clear fire area of unprotected personnel and isolate. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Empty containers may retain product residue including flammable or explosive vapors. Do not cut, drill, grind, or weld near full, partially full, or empty product containers.

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.

6. ACCIDENTAL RELEASE MEASURES

CONTAINMENT PROCEDURES: Eliminate all sources of ignition or flammables that may come into contact with a spill of this material. Handling equipment must be grounded to prevent sparking. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.



Material Safety Data Sheet

REMA TIP TOP

Product #'s: 5252901

MSDS #: RTT-IND-021

Rev. # 2

Rev. Date: 1/15/2011

CLEAN-UP PROCEDURES: Eliminate ignition sources including sources of electrical, static or frictional sparks. Ventilate the contaminated area. Absorb spill with inert material. Shovel material into properly labeled closed metal containers for disposal. Use non-sparking tools. Place in non-leaking containers for immediate disposal. Flush area with water to remove trace residue. Do not allow the spilled product to enter public drainage system or open water courses.

EVACUATION PROCEDURES: Persons not wearing appropriate protective equipment should be excluded from area of spill until clean up has been completed.

SPECIAL PROCEDURES: Follow all Local, State, Federal and Provincial regulations for disposal. Notify the proper authorities if entry to the environment occurs.

7. HANDLING & STORAGE

HANDLING: Very large quantities of these packages, if mishandled, may accumulate enough liquid or vapor to cause a flammable atmosphere. Vapors are heavier than air and may spread along the floor.

Keep liquid and vapor away from heat, sparks and flames. Surfaces that are sufficiently hot may ignite liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone. Vapors may accumulate and travel to ignition sources distant from the handling site; flash fire can result. Keep containers closed when not in use. Use with adequate ventilation.

Containers, even those that have been emptied, can contain explosive vapors. DO NOT cut, drill, grind, weld or perform similar operations on or near containers. DO NOT pressurize drum containers to empty them.

Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment.

Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Air-dry contaminated clothing in a well ventilated area before laundering.

STORAGE: Store between 15-20°C (59-68°F). Keep packaged in original, labeled containers until use. Store in a cool, dry, well-ventilated area. Store this product in air-tight containers away from sources of heat and light. Ground all equipment to prevent accumulation of static charge. Store away from incompatible materials. Do not remove or deface label. Do not reuse container without recycling or reconditioning in accordance with any Federal, Provincial, State or local laws. Do not use cutting or welding torches, open flames, or electric arcs on empty or full containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION: Wear safety glasses. Chemical goggles and/ or face shields should be worn, when splashing is a possibility. Contact lenses should not be exposed. If vapor exposure causes eye discomfort, use a full-face respirator.



Material Safety Data Sheet

REMA TIP TOP

Product #'s: 5252901

MSDS #: RTT-IND-021

Rev. # 2

Rev. Date: 1/15/2011

SKIN PROTECTION: Use impervious gloves. Use of impervious apron and boots are recommended. Wash contaminated clothing before reuse.

RESPIRATORY PROTECTION: If recommended exposure limits are exceeded, a NIOSH-approved, continuous flow supplied air-respirator, hood or helmet is acceptable. A NIOSH approved self-contained positive pressure breathing apparatus, with full-face piece, is required for spills and/ or emergencies.

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.

Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: 100 ppm TWA
150 ppm STEL
OSHA: 100 ppm TWA; 435 mg/m³ TWA

Ethyl benzene (100-41-4)

ACGIH: 100 ppm TWA
125 ppm STEL
OSHA: 100 ppm TWA; 435 mg/m³ TWA
NIOSH: 100 ppm TWA; 435 mg/m³ TWA
125 ppm STEL; 545 mg/m³ STEL

Component Exposure Limits - Canada

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

Xylenes (o-, m-, p- isomers) (1330-20-7)

Alberta: 100 ppm TWA; 434 mg/m³ TWA
150 ppm STEL; 651 mg/m³ STEL
British Columbia: 100 ppm TWA
150 ppm STEL
Manitoba: 100 ppm TWA; 435 mg/m³ TWA
150 ppm STEL; 655 mg/m³ STEL
New Brunswick: 100 ppm TWA; 434 mg/m³ TWA
150 ppm STEL; 651 mg/m³ STEL
NW Territories: 100 ppm TWA; 434 mg/m³ TWA
150 ppm STEL; 652 mg/m³ STEL
Nova Scotia: 100 ppm TWA
150 ppm STEL
Nunavut: 100 ppm TWA; 434 mg/m³ TWA
150 ppm STEL; 652 mg/m³ STEL
Ontario: 100 ppm TWAEV; 435 mg/m³ TWAEV
150 ppm STEV; 650 mg/m³ STEV
Quebec: 100 ppm TWAEV; 434 mg/m³ TWAEV
150 ppm STEV; 651 mg/m³ STEV
Saskatchewan: 434 mg/m³ TWA; 100 ppm TWA
651 mg/m³ STEL; 150 ppm STEL
Yukon: 100 ppm TWA; 435 mg/m³ TWA
150 ppm STEL; 650 mg/m³ STEL



Material Safety Data Sheet

REMA TIP TOP

Product #'s: 5252901

MSDS #: RTT-IND-021

Rev. # 2

Rev. Date: 1/15/2011

Polymethylene polyphenylene isocyanate (9016-87-9)

Alberta: 0.005 ppm TWA; 0.07 mg/m³ TWA

Ethyl benzene (100-41-4)

Alberta: 100 ppm TWA; 434 mg/m³ TWA
125 ppm STEL; 543 mg/m³ STEL

British Columbia: 100 ppm TWA
125 ppm STEL

Manitoba: 100 ppm TWA; 435 mg/m³ TWA
125 ppm STEL; 545 mg/m³ STEL

New Brunswick: 100 ppm TWA; 434 mg/m³ TWA
125 ppm STEL; 543 mg/m³ STEL

NW Territories: 100 ppm TWA; 434 mg/m³ TWA
125 ppm STEL; 542 mg/m³ STEL

Nova Scotia: 100 ppm TWA
125 ppm STEL

Nunavut: 100 ppm TWA; 434 mg/m³ TWA
125 ppm STEL; 542 mg/m³ STEL

Ontario: 100 ppm TWAEV; 435 mg/m³ TWAEV
125 ppm STEV; 540 mg/m³ STEV

Quebec: 100 ppm TWAEV; 434 mg/m³ TWAEV
125 ppm STEV; 543 mg/m³ STEV

Saskatchewan: 435 mg/m³ TWA; 100 ppm TWA
543 mg/m³ STEL; 125 ppm STEL

Yukon: 100 ppm TWA; 435 mg/m³ TWA
125 ppm STEL; 545 mg/m³ STEL

9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE: Brown liquid

ODOR: Aromatic **ODOR THRESHOLD:** Not Available

BOILING POINT: ~ 276.8°F (136°C) (Xylene)

SOLUBILITY IN WATER: May react with water.

SPECIFIC GRAVITY: Not available

VAPOR PRESSURE: <1 E-5 hPa @77°F (25°C)

% VOLATILE: 100%



Material Safety Data Sheet

REMA TIP TOP

Product #'s: 5252901

MSDS #: RTT-IND-021

Rev. # 2

Rev. Date: 1/15/2011

10. STABILITY & REACTIVITY

INCOMPATIBILITY WITH OTHER MATERIALS: Materials to avoid are strong acids, bases, amines, alcohols and water. Avoid open flames and welding arcs which can cause thermal degradation. Product may react with water.

HAZARDOUS POLYMERIZATION: Will not occur.

DECOMPOSITION PRODUCTS: Hazardous combustion products may include and are not limited to oxides of nitrogen, carbon monoxide, and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

This product is harmful by inhalation, when in contact with the skin, eyes and if it is swallowed. Aspiration hazard. Lung damage may occur if aspirated into the lungs and may be fatal. Symptoms include coughing and difficulty breathing. May cause CNS effects with symptoms that include headache, drowsiness, dizziness and loss of coordination. Inhalation of high vapor concentrations may cause symptoms of headache, dizziness, drowsiness, nausea and vomiting. May cause sensitisation by inhalation and skin contact. Probable cancer hazard.

CHRONIC TOXICITY

Overexposure may cause damage to the liver and kidneys. Repeated or prolonged exposure may cause skin irritation and dermatitis.

CARCINOGENICITY

This product contains component(s) that may be listed by ACGIH, IARC, NIOSH, NTP OR OSHA.

Component Carcinogenicity

Xylenes (o-, m-, p- isomers) (1330-20-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 71, 1999; Monograph 47, 1989 (Group 3 (not classifiable))

Polymethylene polyphenylene isocyanate (9016-87-9)

IARC: Supplement 7, 1987; Monograph 19, 1979 (Group 3 (not classifiable))

Ethyl benzene (100-41-4)

ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans

IARC: Monograph 77, 2000 (Group 2B (possibly carcinogenic to humans))

12. ECOLOGICAL INFORMATION

No information available for the product.



Material Safety Data Sheet

REMA TIP TOP

Product #'s: 5252901

MSDS #: RTT-IND-021

Rev. # 2

Rev. Date: 1/15/2011

Component Analysis - Ecotoxicity - Aquatic Toxicity

Xylenes (o-, m-, p- isomers) (1330-20-7)

Test & Species

96 Hr LC50 Pimephales promelas	13.4 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	8.05 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	16.1 mg/L [flow-through]
96 Hr LC50 Pimephales promelas	26.7 mg/L [static]
24 hr EC50 Photobacterium phosphoreum	0.0084 mg/L
48 Hr EC50 water flea	3.82 mg/L
48 Hr LC50 Gammarus lacustris	0.6 mg/L

Conditions

Petroleum naphtha, light aromatic (64742-95-6)

Test & Species

48 Hr EC50 Daphnia magna	6.14 mg/L
--------------------------	-----------

Conditions

Ethyl benzene (100-41-4)

Test & Species

96 Hr LC50 Oncorhynchus mykiss	14.0 mg/L [static]
96 Hr LC50 Pimephales promelas	9.09 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	150.0 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	4.2 mg/L [static]
96 Hr LC50 Lepomis macrochirus	32 mg/L [static]
96 Hr LC50 Pimephales promelas	48.5 mg/L [static]
96 Hr LC50 Poecilia reticulata	9.6 mg/L [static]
72 Hr EC50 Selenastrum capricornutum	4.6 mg/L
96 Hr EC50 Selenastrum capricornutum	>438 mg/L
30 min EC50 Photobacterium phosphoreum	9.68 mg/L
24 Hr EC50 Nitrosomonas	96 mg/L
48 Hr EC50 Daphnia magna	1.8-2.4 mg/L

Conditions

13. DISPOSAL CONSIDERATIONS

DISPOSAL: Waste must be handled in accordance with all federal, state, provincial, and local regulations.

UNUSED & UNCONTAMINATED PRODUCT:

Component Waste Numbers

Xylenes (o-, m-, p- isomers) (1330-20-7)

RCRA: waste number U239 (Ignitable waste, Toxic waste)

If discarded, this product is considered a RCRA ignitable waste, D001 (Ignitable Waste).



Material Safety Data Sheet

REMA TIP TOP

Product #'s: 5252901

MSDS #: RTT-IND-021

Rev. # 2

Rev. Date: 1/15/2011

14. TRANSPORT INFORMATION

US DOT Information

Shipping Name: Flammable liquids, n.o.s. (Contains: Xylenes (o-, m-, p- isomers), Petroleum naphtha, light aromatic), Mixture

UN/NA #: UN1993 **Hazard Class:** 3 **Packing Group:** III

Required Label(s): FLAMMABLE

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

EXCEPTIONS: DOT Paragraphs 1173.150, 173.202, & 173.242.

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

TDG Information

Shipping Name: Flammable liquid, n.o.s. (Contains: Xylenes (o-, m-, p- isomers), Petroleum naphtha, light aromatic), Mixture

UN/NA #: UN1993 **Hazard Class:** 3 **Packing Group:** III

Required Label(s): FLAMMABLE

IMDG Information

Additional Info.: F-E, S-E

IATA Information

Additional Info.: 3

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

SARA 313 INFORMATION:

Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 313 (40 CFR 372.65).

Xylenes (o-, m-, p- isomers) (1330-20-7)

SARA 313: 1.0 % de minimis concentration

Polymethylene polyphenylene isocyanate (9016-87-9)

SARA 313: 1.0 % de minimis concentration (listed under Chemical Category N120, Diisocyanates)

Ethyl benzene (100-41-4)

SARA 313: 0.1 % de minimis concentration

SARA HAZARD CATEGORY:

Acute Health: Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** No **Reactive:** No



Material Safety Data Sheet

REMA TIP TOP

Product #'s: 5252901

MSDS #: RTT-IND-021

Rev. # 2

Rev. Date: 1/15/2011

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).

Xylenes (o-, m-, p- isomers) (1330-20-7)

CERCLA:

100 lb final RQ; 45.4 kg final RQ

Ethyl benzene (100-41-4)

CERCLA:

1000 lb final RQ; 454 kg final RQ

TOXIC SUBSTANCES CONTROL ACT (TSCA): All components are on the U.S. EPA TSCA Inventory List.

Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	DSL	EINECS
Polymethylene polyphenylene isocyanate	9016-87-9	Yes	DSL	No
Petroleum naphtha, light aromatic	64742-95-6	Yes	DSL	EINECS
Ethyl benzene	100-41-4	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
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	Yes	Yes	Yes	Yes	Yes
Ethyl benzene	100-41-4	Yes	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

CANADIAN REGULATIONS

This product is regulated under the Canadian Controlled Products Regulations.

WHMIS INFORMATION:

WHMIS Classification: B2, D2A, D2B

Component Analysis - WHMIS IDL

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

Component	CAS #	Minimum Concentration
Ethyl benzene	100-41-4	0.1 %



Material Safety Data Sheet

REMA TIP TOP

Product #'s: 5252901

MSDS #: RTT-IND-021

Rev. # 2

Rev. Date: 1/15/2011

EUROPE:

Component Analysis

Component (CAS#)

Xylenes (o-, m-, p- isomers) (1330-20-7)

Petroleum naphtha, light aromatic (64742-95-6)

Ethyl benzene (100-41-4)

EC

215-535-7

265-199-0

202-849-4

16. OTHER INFORMATION

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

NFPA Ratings: Health: 2 Fire: 3 Reactivity: 1

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

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.