



# Material Safety Data Sheet

REMA TIP TOP

Product #'s: 525 2884

MSDS #: RTT-IND-040

Rev. # 2

Rev. Date: 1/15/2011

## 1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Name: Tip Top Hardener Comp. B

Product Use: Cross Linking Agent

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>
* Diphenylmethane diisocyanate (isomers and homologues)	9016-87-9	> 90%	0.2 mg/m <sup>3</sup>

\*Denotes chemical subject to reporting requirements of Section 313 of Title III of the 1986 Superfund Amendments and Reauthorization Act (SARA) and 40 CFR Part 372

## 3. HAZARDS IDENTIFICATION

### POTENTIAL HEALTH EFFECTS:

**EYE:** Direct contact may cause pain. May cause moderate eye irritation, which may be slow to heal Vapors may irritate eyes.

**SKIN:** Prolonged or repeated exposure may cause skin irritation. Repeated or prolonged exposure may cause skin sensitization.

**INGESTION:** Single dose oral toxicity is considered to be low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. If aspirated (liquid enters the lung), may be rapidly absorbed through the lungs and result in injury to other body systems.

**INHALATION:** May cause headaches, nausea, and shortness of breath. Repeated or prolonged inhalation exposure may cause asthma. Symptoms of asthma often do not become manifest until a few hours have passed and they are aggravated by physical exertion. If symptoms of asthma occur due to exposure to this substance, care should be taken to avoid all further contact with this substance.

**CANCER INFORMATION:** For Hazard Communication purposes, under OSHA Standard 29 CFR Part 1910.1200, IARC lists Diphenylmethane diisocyanate, as Group 3, not classifiable.

**TERATOLOGY (BIRTH DEFECTS):** None

**REPRODUCTIVE EFFECTS:** None



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## 4. FIRST AID

**EYES:** Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.

**INGESTION:** Rinse mouth with water. Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.

**SKIN:** Wash off in flowing water or shower.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel should administer oxygen. Call a physician or transport to medical facility.

## 5. FIRE FIGHTING MEASURES

**FLAMMABLE PROPERTIES:** Flash Point 428°F (220°C) Method used – TOC, TCC & COC.  
Autoignition Temperatures - 464°F (240°C).

**HAZARDOUS COMBUSTION PRODUCTS:** During a fire, formation of carbon monoxide, nitrogen oxide, isocyanate vapor, and traces of hydrogen cyanide are possible.

**EXTINGUISHING MEDIA:** Water fog or fine spray. Carbon dioxide, Dry chemical, or Foam. Water fog, applied gently may be used as a blanket for fire extinguishment.

**FIRE FIGHTING INSTRUCTIONS:** Keep people away. Isolate fire area and deny unnecessary entry. Contain fire run-off if possible. Fire water run-off, if not contained may cause environmental damage. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Immediately withdraw all personnel from area in case of rising sound from venting safety device or discoloration of the container. Move container from fire area if this is possible without hazard. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Eliminate ignition source.

**PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots and gloves). If protection equipment is not available or not used, fight fire from a protected location or safe distance.

## 6. ACCIDENTAL RELEASE MEASURES

In case of accidental release of a large volume of this product, clear all personnel from area. Do not breathe vapors. Ventilate area of leak or spill. Wear protective equipment including positive pressure self-contained or air supplied breathing apparatus. Follow confined space entry procedures if applicable, ASTM D-4276 and OSHA 29CFR 1910.146. Contain liquid to prevent contamination of soil, surface water, or groundwater. It will collect on the lowest surface. For large spills; contain liquid; transfer to properly labeled closed metal containers. For small spills: mop or soak up immediately. Place in properly labeled metal containers. Notify National Response Center (800-424-8802) of uncontained releases to the environment in excess of the Reportable Quantity (RQ). For all transportation accidents, call CHEMTREC at 800-424-9300.



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## 7. HANDLING & STORAGE

**HANDLING:** This product is shipped only in small bottles, packed in kits with other REMA products. Very large quantities of these packages, if mishandled, may accumulate enough liquid or vapor to cause a harmful atmosphere; however, the probability of this type of release is quite small. If large numbers of these bottles are broken, releasing the contents, evacuate the area and call for emergency personnel.

**STORAGE:** Keep packaged in original containers until use. Store in cool, dry place. Do not store in aluminum, zinc, aluminum alloys and plastic containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### ENGINEERING CONTROLS

Provide general and/or local exhaust ventilation to control airborne levels to below exposure guidelines.

### PERSONAL PROTECTIVE EQUIPMENT

**EYE/FACE PROTECTION:** Use splash goggles. If vapor exposure causes eye discomfort, use a full-face respirator.

**SKIN PROTECTION:** Use protective clothing impervious to this material. Selection of specific items such as face shield, gloves, boots, apron, or full body suit will depend on operation. Remove contaminated clothing immediately; wash skin area with soap and water and launder clothing before reuse.

**RESPIRATORY PROTECTION:** Atmospheric levels should be maintained below the exposure guideline. In the unlikely event where vapor concentration exceeds or is likely to exceed the OSHA PEL, a NIOSH-approved, continuous flow supplied air-respirator, hood or helmet is acceptable. A NIOSH approved self-contained breathing apparatus or supplied-air respirator, with full facepiece, is required for vapor concentrations exceeding exposure limits. A NIOSH approved self-contained positive pressure breathing apparatus, with full facepiece, is required for spills and/or emergencies. The minimum requirements for respiratory protection for Dichloromethane (Methylene Chloride) appear in 29 CFR 1910.1052 (f). For emergencies in confined or poorly ventilated areas, call for properly trained emergency personnel.

### EXPOSURE GUIDELINE(s):

The following Provincial Exposure Limits apply for the Diphenylmethane diisocyanate component in Canada:  
Alberta: 0.005 ppm TWA; 0.07 mg/m<sup>3</sup> TWA

## 9. PHYSICAL & CHEMICAL PROPERTIES

**APPEARANCE:** Brownish Liquid

**ODOR:** Irritating, sweet solvent odor; Odor Threshold = 200-300 ppm.

**SOLUBILITY IN WATER:** Reacts with water.

**SPECIFIC GRAVITY:** 1.24 G/cm<sup>3</sup> @ 68°F (20°C)



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VAPOR PRESSURE: 0.00001 mbar @ 77°F (25°C)

## 10. STABILITY & REACTIVITY

**INCOMPATIBILITY WITH OTHER MATERIALS:** Product is stable under recommended storage conditions. Materials to avoid are water, amines, alcohols, acids and alkali. Avoid open flames and welding arcs, which can cause thermal degradation.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**DECOMPOSITION PRODUCTS:** Hazardous decomposition products may include and are not limited to hydrogen chloride and trace amounts of chlorine and phosgene (Intense heat of fire)

## 11. DISPOSAL CONSIDERATIONS

**DISPOSAL:** Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility of the waste generator.

**UNUSED & UNCONTAMINATED PRODUCT:** The preferred options include sending to a licensed, permitted recycler, reclaimer, incinerator or other thermal destruction device.

## 12. TRANSPORT INFORMATION

### DOT INFORMATION:

**SHIPPING NAME:** This product is not regulated as a hazardous material for transport.

**PLACARD (WHEN REQUIRED):**

**SHIPPING LABEL (WHEN REQUIRED):**

**EXCEPTIONS:** DOT Paragraphs 172.153 & 172.202

**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:** This product is not regulated as dangerous goods for transport.

### IMDG INFORMATION:

**ADDITIONAL INFORMATION:** This product is not regulated as dangerous goods for transport.



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**ICAO/IATA INFORMATION:**

**ADDITIONAL INFORMATION:** This product is not regulated as dangerous goods for transport.

### 13. REGULATORY INFORMATION

**NOTICE:** The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws. The following specific information is made for the purpose of complying with numerous laws and regulations.

#### US FEDERAL REGULATIONS

**SARA 313 INFORMATION:** Components identified with an asterisk (\*) in Section 2 are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

**SARA HAZARD CATEGORY:** This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of SARA Title III and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD  
DELAYED HEALTH HAZARD

**COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA):**

This product contains the following substance listed as "Hazardous Substances" under CERCLA which may require reporting of releases:

CATEGORY	CHEMICAL NAME:	CAS NUMBER:	RQ:	% IN PRODUCT:
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**TOXIC SUBSTANCES CONTROL ACT (TSCA):** All ingredients are listed on the TSCA inventory.

**OSHA HAZARD COMMUNICATION STANDARD:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

**STATE RIGHT-TO-KNOW:** The following product component(s) are cited on certain State lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

CHEMICAL NAME:	CAS NUMBER:	LIST:
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**CALIFORNIA PROPOSITION 65:** The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986:



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## CANADIAN REGULATIONS

**WHMIS INFORMATION:** The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

D2B – Eye or skin irritant

**CPR STATEMENT:** This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**HAZARDOUS PRODUCTS ACT INFORMATION:** This product contains the following ingredient(s) which are Controlled Products and/or on the Ingredient Disclosure List (Canadian HPA section 13 & 14):

COMPONENTS:	CAS #	AMOUNT (%W/W)
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EUROPE:

## 14. OTHER INFORMATION

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:**

Health = 1 Flammability = 1 Reactivity = 0

**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.**