



Material Safety Data Sheet

REMA TIP TOP

Product #'s: C320, C320 1KG,
C320G, C320 DRUM

MSDS #: RTT-IND-003

Rev. # 1

Rev. Date: 2/12/2008

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Name: C320 White Cement (SC2000 White Cement)
Product Use: Adhesive
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>
Trichloroethylene	79-01-6	60-90	100 ppm TWA
Zinc oxide	1314-13-2	1-3	5 mg/m ³ TWA (fume); 15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)

Component Related Regulatory Information

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

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

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication) and the Canadian Controlled Products Regulations.

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS:

This product is a white mobile liquid adhesive. This product may be irritating to the eyes, respiratory system and skin. This product may cause central nervous system depression and allergic reactions. Skin absorption is possible. Component of this product is known to be a possible carcinogen.

EYE: This product is irritating to the eyes. Vapors may also produce eye irritation.

SKIN: This product is irritating to the skin. Prolonged and/or repeated skin contact with this product can cause defatting of skin and dermatitis. Skin absorption is possible, causing systemic poisoning.

INGESTION: This product may be harmful if it is swallowed. Single dose toxicity is considered to be low. If aspirated (liquid enters the lung), this product may be rapidly absorbed through the lungs and result in injury to other body systems.

INHALATION: This product may be harmful by inhalation. Exposure to high concentrations of vapor or mist can cause central nervous system depression with symptoms of headache, dizziness, stupor, loss of consciousness or death. High concentrations can cause irregular heartbeat, cardiac arrest and death. Overexposure has been shown to cause adverse effects on the liver and nervous system.



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4. FIRST AID

EYES: Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. If irritation persists get medical attention.

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

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

INHALATION: Move person to non-contaminated air. If the affected person is not breathing, apply artificial respiration. Seek medical attention.

NOTE TO PHYSICIAN: Provide general supportive measures and treat symptomatically.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point: >200°F (93.3°C)

Upper Flammable Limit (UFL): 44.8% @ 212°F (100°C);
10.5% @ 77°F (25°C)

Auto Ignition: 788°F (420°C)

Method Used: TOC, TCC, COC

Lower Flammable Limit (LFL): 8% @ 212°F (100°C); 8% @
77°F (25°C)

Flammability Classification: Class IIIB liquid

HAZARDOUS COMBUSTION PRODUCTS: Hazardous combustion products may include and are not limited to hydrogen chloride. Hazardous combustion products may include trace amounts of phosgene and chlorine gases.

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

FIRE FIGHTING INSTRUCTIONS: This product poses a slight fire hazard.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: Fire fighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling any combustion products.

6. ACCIDENTAL RELEASE MEASURES

CONTAINMENT PROCEDURES: Stop the flow of material, if this is without risk. Contain the discharged material. Prevent contamination of soil, surface water or groundwater. Material is heavier than water and has limited water solubility. It will collect on the lowest surface.

CLEAN-UP PROCEDURES: Wear appropriate protective equipment and clothing during clean up. Absorb spill with inert material. Shovel material into appropriate container for disposal.

EVACUATION PROCEDURES: Isolate area. Keep unnecessary personnel away.



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SPECIAL PROCEDURES: 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.

7. HANDLING & STORAGE

HANDLING: Do not get this material in your eyes, on your skin, or on your clothing. Avoid breathing vapors or mists of this product. Wash thoroughly after handling. DO NOT eat, drink or smoke in product area.

STORAGE: Keep packaged in original, labeled containers until use. Store in a cool, dry place. Do not store in aluminum, zinc, aluminum alloys and plastic containers. Do not remove or deface label. Prevent water or moist air from entering containers. 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 with side shields. Contact lenses should not be exposed. Wear chemical goggles; face shield (if splashing is possible). If vapor exposure causes eye discomfort, use a full-face respirator.

SKIN PROTECTION: Use impervious gloves. Use of impervious apron and boots are recommended.

RESPIRATORY PROTECTION: If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

EXPOSURE GUIDELINE(s):



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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.

Trichloroethylene (79-01-6)

ACGIH: 50 ppm TWA
100 ppm STEL
OSHA: 100 ppm TWA
200 ppm Ceiling

Zinc oxide (1314-13-2)

ACGIH: 2 mg/m³ TWA (respirable fraction)
10 mg/m³ STEL (respirable fraction)
OSHA: 5 mg/m³ TWA (fume); 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)
NIOSH: 5 mg/m³ TWA (dust and fume)
10 mg/m³ STEL (fume)
15 mg/m³ Ceiling (dust)

Component Exposure Limits - Canada

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

Trichloroethylene (79-01-6)

Alberta: 50 ppm TWA; 269 mg/m³ TWA
100 ppm STEL; 537 mg/m³ STEL
British Columbia: 50 ppm TWA
100 ppm STEL
Manitoba: 50 ppm TWA; 270 mg/m³ TWA
200 ppm STEL; 1080 mg/m³ STEL
New Brunswick: 50 ppm TWA; 269 mg/m³ TWA
100 ppm STEL; 537 mg/m³ STEL
NW Territories: 100 ppm TWA; 537 mg/m³ TWA
150 ppm STEL; 806 mg/m³ STEL
Nova Scotia: 50 ppm TWA
100 ppm STEL
Nunavut: 100 ppm TWA; 537 mg/m³ TWA
150 ppm STEL; 806 mg/m³ STEL
Ontario: 50 ppm TWAEV
100 ppm STEV
Quebec: 50 ppm TWAEV; 269 mg/m³ TWAEV
200 ppm STEV; 1070 mg/m³ STEV
Saskatchewan: 269 mg/m³ TWA; 50 ppm TWA
537 mg/m³ STEL; 100 ppm STEL
Yukon: 100 ppm TWA; 535 mg/m³ TWA
150 ppm STEL; 800 mg/m³ STEL

Zinc oxide (1314-13-2)

Alberta: 10 mg/m³ TWA (dust); 5 mg/m³ TWA (fume)
10 mg/m³ STEL (fume)
British Columbia: 2 mg/m³ TWA (respirable)
10 mg/m³ STEL (respirable)
Manitoba: 5 mg/m³ TWA (fume); 10 mg/m³ TWA (dust, the value is for total dust containing no asbestos)



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	and < 1% crystalline silica)
	10 mg/m ³ STEL (fume)
New Brunswick:	5 mg/m ³ TWA (fume); 10 mg/m ³ TWA (particulate matter containing no asbestos and < 1% crystalline silica, dust)
	10 mg/m ³ STEL (fume)
NW Territories:	5 mg/m ³ TWA (fume); 5 mg/m ³ TWA (dust, respirable mass); 10 mg/m ³ TWA (dust, total mass)
	10 mg/m ³ STEL (fume)
Nova Scotia:	2 mg/m ³ TWA (respirable fraction)
	10 mg/m ³ STEL (respirable fraction)
Nunavut:	5 mg/m ³ TWA (fume); 5 mg/m ³ TWA (dust, respirable mass); 10 mg/m ³ TWA (dust, total mass)
	10 mg/m ³ STEL (fume)
Ontario:	2 mg/m ³ TWAEV (respirable)
	10 mg/m ³ STEV (respirable)
Quebec:	5 mg/m ³ TWAEV (fume); 10 mg/m ³ TWAEV (dust)
	10 mg/m ³ STEV (fume)
Saskatchewan:	5 mg/m ³ TWA (fume); 10 mg/m ³ TWA (dust)
	10 mg/m ³ STEL (fume); 20 mg/m ³ STEL (dust)
Yukon:	5 mg/m ³ TWA (fume); 30 mppcf TWA (dust); 10 mg/m ³ TWA (dust)
	10 mg/m ³ STEL (fume); 20 mg/m ³ STEL (dust)

9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE: White mobile liquid

ODOR: Mildly sweet, ether-like

ODOR THRESHOLD: ~60 ppm

BOILING POINT: 188°F (86.7°C)

SOLUBILITY IN WATER: 0.1 g/100g @ 77°F (25°C)

SPECIFIC GRAVITY: 1.45 @ 77°F (25°C)

VAPOR PRESSURE: 58 mm Hg @ 20°C (68°F)

% VOLATILE: 82%

10. STABILITY & REACTIVITY

INCOMPATIBILITY WITH OTHER MATERIALS: Materials to avoid are strong alkalis, oxidizers, barium, lithium, magnesium and titanium.

HAZARDOUS POLYMERIZATION: Will not occur.

DECOMPOSITION PRODUCTS: Upon decomposition, this product may produce hydrogen chloride and trace amounts of chlorine and phosgene (intense heat of fire).



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11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

This product may be irritating to the eyes, skin, and respiratory system. This product may cause sensitization in previously exposed individuals and result in contact dermatitis. This product may be absorbed through the skin. Acute inhalation may cause central nervous system depression with drowsiness, dizziness, headache, nausea, vomiting, unconsciousness and coma. Death may occur from respiratory arrest or ventricular fibrillation resulting in primary cardiac failure. Liver and kidney damage may also occur.

CHRONIC TOXICITY

Prolonged or repeated liquid contact can result in defatting and drying of the skin, which may result in skin irritation and dermatitis. Sensitization may occur. Repeated exposure to the eyes may cause conjunctivitis.

CARCINOGENICITY

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

Component Carcinogenicity

Trichloroethylene (79-01-6)

ACGIH: A5 - Not Suspected as a Human Carcinogen

NIOSH: potential occupational carcinogen

NTP: Reasonably Anticipated To Be A Carcinogen (Possible Select Carcinogen)

IARC: Monograph 63, 1995 (Group 2A (probably carcinogenic to humans))

12. ECOLOGICAL INFORMATION

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

Component Analysis - Ecotoxicity - Aquatic Toxicity

Trichloroethylene (79-01-6)

Test & Species

96 Hr LC50 fathead minnow

44.1 mg/L

Conditions

flow-through

13. DISPOSAL CONSIDERATIONS

DISPOSAL: Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.



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UNUSED & UNCONTAMINATED PRODUCT:

Component Waste Numbers

Trichloroethylene (79-01-6)

RCRA:

waste number U228
0.5 mg/L regulatory level

This product contains a component identified as hazardous under 40 CFR 261.24.

14. TRANSPORT INFORMATION

US DOT Information

Shipping Name: Trichloroethylene Mixture

UN/NA #: UN1710 Hazard Class: 6.1 Packing Group: III

Required Label(s): POISON

Additional Info.: Check RQ regulations for the product packaging.

PLACARD (WHEN REQUIRED): POISON, 6.

EXCEPTIONS: DOT Paragraphs 173.153 & 173.203.

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: Trichloroethylene

UN/NA #: UN1710 Hazard Class: 6.1 Packing Group: III

Required Label(s): POISON

IMDG Information

Additional Info.: F-A, S-A

IATA Information

Additional Info.: 6.1

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).

Trichloroethylene (79-01-6)

SARA 313:

0.1 % de minimis concentration

SARA HAZARD CATEGORY:

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



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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).

Trichloroethylene (79-01-6)

CERCLA:

100 lb final RQ; 45.4 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
Trichloroethylene	79-01-6	Yes	DSL	EINECS
Zinc oxide	1314-13-2	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
Trichloroethylene	79-01-6	Yes	Yes	Yes	Yes	Yes	Yes
Zinc oxide	1314-13-2	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.

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: D1A, D2A, D2B

Component Analysis - WHMIS IDL

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

Component	CAS #	Minimum Concentration
Trichloroethylene	79-01-6	1 %
Zinc oxide	1314-13-2	1 %

EUROPE:

Component Analysis

Component (CAS#)	EC #
Trichloroethylene (79-01-6)	201-167-4
Zinc oxide (1314-13-2)	215-222-5



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16. OTHER INFORMATION

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

NFPA Ratings: Health: 2 Fire: 1 Reactivity: 0

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.

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