



Material Safety Data Sheet

REMA TIP TOP

Product #'s: 5252918

MSDS #: RTT-IND-029

Rev. # 1

Rev. Date: 2/19/2008

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Name: Tip Top Chemokitt V

Product Use: Hard rubber surfacer

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>
Styrene	100-42-5	20-35	100 ppm 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:

This product is a black paste with styrene odor. Flammable liquid and vapor. Vapors may cause flash fire. It can cause eye, skin, respiratory and digestive system irritation. Harmful by inhalation. Symptoms of exposure may include central nervous system depression. Acute exposures to styrene may cause "styrene sickness" with symptoms including headache, nausea, dizziness, ataxia and unconsciousness. Components are known to cause mutagenic and teratogenic effects. Suspect carcinogen.

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

SKIN: This product is irritating 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. 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: Harmful by inhalation. Symptoms may include irritation, nausea, vomiting, headache, difficulty breathing, drowsiness, dizziness, loss of coordination, kidney damage, liver damage, unconsciousness, and coma.



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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. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.

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: 32°C (95°F)

Upper Flammable Limit (UFL): Not Available

Auto Ignition: 490°C (914°F)

Method Used: Not Available

Lower Flammable Limit (LFL): 1.1%

Flammability Classification: Class IC

HAZARDOUS COMBUSTION PRODUCTS: Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or irritating, corrosive, flammable or toxic carbonization gases.

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical, water fog or fine spray.

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. May polymerize upon exposure to heat. 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. Combustion products may be hazardous.

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: 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.

CLEAN-UP PROCEDURES: Wear appropriate personal protective equipment. 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



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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: 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: May polymerize upon exposure to heat. Do not store above 50°C (122°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.

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.



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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.

Styrene (100-42-5)

ACGIH:	20 ppm TWA 40 ppm STEL
OSHA:	100 ppm TWA 200 ppm Ceiling
NIOSH:	50 ppm TWA; 215 mg/m ³ TWA 100 ppm STEL; 425 mg/m ³ STEL

Component Exposure Limits - Canada

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

Styrene (100-42-5)

Alberta:	50 ppm TWA; 213 mg/m ³ TWA 100 ppm STEL; 426 mg/m ³ STEL
British Columbia:	50 ppm TWA 75 ppm STEL
Manitoba:	50 ppm TWA; 215 mg/m ³ TWA 100 ppm STEL; 425 mg/m ³ STEL
New Brunswick:	20 ppm TWA; 85 mg/m ³ TWA 40 ppm STEL; 170 mg/m ³ STEL
NW Territories:	50 ppm TWA; 213 mg/m ³ TWA 100 ppm STEL; 426 mg/m ³ STEL
Nova Scotia:	20 ppm TWA 40 ppm STEL
Nunavut:	50 ppm TWA; 213 mg/m ³ TWA 100 ppm STEL; 426 mg/m ³ STEL
Ontario:	50 ppm TWAEV; 213 mg/m ³ TWAEV 200 ppm STEV; 852 mg/m ³ STEV
Quebec:	50 ppm TWAEV; 213 mg/m ³ TWAEV 100 ppm STEV; 426 mg/m ³ STEV
Saskatchewan:	213 mg/m ³ TWA; 50 ppm TWA 426 mg/m ³ STEL; 100 ppm STEL
Yukon:	100 ppm TWA; 420 mg/m ³ TWA 125 ppm STEL; 525 mg/m ³ STEL

9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE: Black Paste

ODOR: Styrene-like

ODOR THRESHOLD: Not Available

BOILING POINT: Not Available



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SOLUBILITY IN WATER: Insoluble

SPECIFIC GRAVITY: 1.33-1.37 g/ml

VAPOR PRESSURE: 6 hPa

% VOLATILE: 20-35%

10. STABILITY & REACTIVITY

INCOMPATIBILITY WITH OTHER MATERIALS: Materials to avoid are oxidizing materials, peroxides and metal halogenides.

HAZARDOUS POLYMERIZATION: May polymerize upon exposure to heat.

DECOMPOSITION PRODUCTS: Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or irritating, corrosive, flammable or toxic carbonization gases.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Acute exposures to styrene may cause eye, skin and respiratory irritation, and central nervous system depression known as "styrene sickness" with symptoms including headache, nausea, dizziness, ataxia and unconsciousness. Severe intoxication may cause encephalopathy and hepatitis. Chronic overexposure to styrene may cause neurological defects and impairment of lung, kidney and liver function.

CHRONIC TOXICITY

Chronic overexposure to styrene may cause neurological defects and impairment of lung, kidney and liver function. Occupational styrene exposure has been linked with menstrual disorders, miscarriages and birth defects, however some studies have found no correlation with styrene exposure and reproductive effects.

CARCINOGENICITY

Styrene has been found to be carcinogenic in rodent inhalation studies, while the results of human carcinogenicity studies have been conflicting and inconclusive. However, styrene should be handled as a suspect carcinogen.

Component Carcinogenicity

Styrene (100-42-5)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 82, 2002; Monograph 60, 1994 (Group 2B (possibly carcinogenic to humans))

12. ECOLOGICAL INFORMATION

No data available for this product. May be harmful to aquatic life, based upon components.



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Component Analysis - Ecotoxicity - Aquatic Toxicity

Styrene (100-42-5)

Test & Species

96 Hr LC50 Pimephales promelas	4.02 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	25.05 mg/L [static]
96 Hr LC50 Pimephales promelas	29 mg/L [static]
72 Hr EC50 Selenastrum capricornutum	1.4 mg/L
96 Hr EC50 Selenastrum capricornutum	0.72 mg/L
5 min EC50 Photobacterium phosphoreum	5.4 mg/L
48 Hr EC50 Daphnia magna	4.7 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

No EPA Waste Numbers are applicable for this product's components.

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

14. TRANSPORT INFORMATION

US DOT Information

Shipping Name: Resin solution

UN/NA #: UN1866 **Hazard Class:** 3 **Packing Group:** III

Required Label(s): FLAMMABLE LIQUID

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

EXCEPTIONS: DOT Paragraphs 173.150, 173.202, & 173.242.

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

TDG Information

Shipping Name: Resin solution

UN/NA #: UN1866 **Hazard Class:** 3 **Packing Group:** III

Required Label(s): FLAMMABLE LIQUID

IMDG Information

Additional Info.: F-E, S-E

IATA Information

Additional Info.: 3



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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).

Styrene (100-42-5)

SARA 313: 0.1 % de minimis concentration

SARA HAZARD CATEGORY:

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

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).

Styrene (100-42-5)

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
Styrene	100-42-5	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
Styrene	100-42-5	Yes	Yes	Yes	Yes	Yes	Yes

Other state regulations may apply. Check individual state requirements.

CANADIAN REGULATIONS

This product is regulated under the Canadian Controlled Products Regulations.

WHMIS INFORMATION:

WHMIS Classification:

B2- Flammable Liquid

D2A- Chronic effects

D2B- Irritating to eyes and skin



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Component Analysis - WHMIS IDL

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

Component	CAS #	Minimum Concentration
Styrene	100-42-5	0.1 %

EUROPE:

Component Analysis

Component (CAS#)	EC #
Styrene (100-42-5)	202-851-5

16. OTHER INFORMATION

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

NFPA Ratings: Health: 2 Fire: 3 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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