



Safety Data Sheet

REMA Tire Repair Materials

Product #s: 20(TT-05), 21(TT-01), 22(TT-02),
23(TT-06), 24(TT-04), 5060160

SDS #: RTT-TRM-090

Rev. # 3

Rev. Date: 12/10/2014

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Vulcanizing Fluid (CFC Free Cement) [Cement Tube in Repair Kits]

Chemical Family: Polymer in Aliphatic Hydrocarbon Solution

Product Use: Adhesive / Tire Repair

Restrictions on Use: Use as directed by manufacturer

Manufacturer: Rema Tip Top - North America
119 Rockland Ave.
Northvale, NJ 07647
Phone: 201 256-8200

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

2. HAZARD IDENTIFICATION

GHS Classifications

Physical Hazards

Flammable Liquid, Category 2

Health Hazards

Skin Irritation, Category 2

Eye Irritation, Category 2B

Reproductive Toxicity, Category 2

Specific Target Organ Systemic Toxicity, Single Exposure, Category 3, Central Nervous System [Inhalation, Ingestion, Skin absorption]

Specific Target Organ Systemic Toxicity, Repeat Exposure, Category 2, Central Nervous System [Inhalation, Ingestion, Skin absorption]

Aspiration Hazard, Category 1

Environmental Hazards

Chronic Aquatic Toxicity, Category 2

GHS-Labeling

Pictograms:



Safety Data Sheet

REMA Tire Repair Materials

Product #s: 20(TT-05), 21(TT-01), 22(TT-02),
23(TT-06), 24(TT-04), 5060160

SDS #: RTT-TRM-090

Rev. # 3

Rev. Date: 12/10/2014



Signal Word: Danger!

Hazard Statements

H225: Highly flammable liquid and vapour
H304: May be fatal if swallowed and enters airways
H315: Causes skin irritation
H320: Causes eye irritation
H336: May cause drowsiness or dizziness
H361: Suspected of damaging fertility or the unborn child
H373: May cause damage to organs prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects

Precautionary Statements

Prevention:

P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P233: Keep container tightly closed.
P235: Keep cool.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P261: Avoid breathing vapours.
P264: Wash skin and exposed areas thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection.

Response:

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P321: Specific treatment found in supplemental first aid instruction.



Safety Data Sheet

REMA Tire Repair Materials

Product #s: 20(TT-05), 21(TT-01), 22(TT-02),
23(TT-06), 24(TT-04), 5060160

SDS #: RTT-TRM-090

Rev. # 3

Rev. Date: 12/10/2014

P331: Do NOT induce vomiting.
P332 + P313: If skin irritation occurs: Get medical advice/attention.
P337 + P313: If eye irritation persists: Get medical advice/attention.
P362: Take off contaminated clothing and wash before reuse.
P370 + P378: In case of fire: Use dry chemical, carbon dioxide, fog, or water spray for extinction.
P391: Collect spillage.

Storage:

P403 + P233 + P235: Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P405: Store locked up.

Disposal:

P501: Dispose of contents/container in accordance with local, regional, and federal regulations

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical characterization

Polymer in Aliphatic Hydrocarbon Solution

| Component* | CAS # | % By Wt. |
|----------------------------------|------------|----------|
| Naphtha, petroleum, hydrotreated | 64742-49-0 | 80 – 95 |
| n-Hexane | 110-54-3 | < 4 |
| N-Ethylcyclohexylamine | 5459-93-8 | < 3 |

*The above listed components are OSHA hazardous materials which contribute to this products' GHS Hazard Categorization as prescribed in OSHA's Hazard Communication 29 CFR 1910.1200.

4. FIRST AID MEASURES

Inhalation

Symptoms & Effects: Irritation of the nose and airways, central nervous system depression, nausea, dizziness, drowsiness, weakness, fatigue, headache, lack of coordination, coma

Measures: Immediately remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing has stopped, begin artificial respiration. If breathing is difficult, administer oxygen. Seek immediate medical attention.

Skin Contact

Symptoms & Effects: Skin irritation, redness, burning, drying, cracking of the skin, dermatitis

Measures: Immediately wash skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes while washing. Wash contaminated clothing before reuse. If skin irritation persists, seek medical attention.



Safety Data Sheet

REMA Tire Repair Materials

Product #s: 20(TT-05), 21(TT-01), 22(TT-02),
23(TT-06), 24(TT-04), 5060160

SDS #: RTT-TRM-090

Rev. # 3

Rev. Date: 12/10/2014

Eye Contact

Symptoms & Effects: Eye irritation, stinging, tearing, redness, swelling of the eyes

Measures: Immediately rinse eyes with water for at least 15 minutes. Remove contact lenses after the initial few minutes and if easy to do so and resume rinsing. Rinse beneath eyelids by holding eyelids apart with clean fingers while rinsing. If eye irritation persists, seek medical attention.

Ingestion

Symptoms & Effects: Stomach or intestinal irritation, nausea, irritation of the throat, central nervous system depression, dizziness, drowsiness, weakness, fatigue, and headache. Swallowing large amounts may cause for material to enter the lungs during swallowing or vomiting, leading to lung inflammation and other lung damages.

Measures: Seek immediate medical attention. Do NOT induce vomiting as this material is an aspiration hazard. If the victim is drowsy or unconscious, do not give anything by mouth. If victim is conscious, give at least 3-4 glasses of water. Place individual on their left side and place their head down. Do not leave victim unattended.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Carbon dioxide, Dry chemical, Foam, Water spray

Unsuitable Extinguishing Media: Water jet/stream (See precautions)

Hazardous Combustion Products: Hydrocarbons, Carbon monoxide, Carbon dioxide

Protective Equipment for Fire-Fighters: Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

Precautions for Fire-Fighters: Highly flammable liquid. Vapors are heavier than air and may travel along the ground to some distance source of ignition and cause a flashback fire danger. Direct water stream or water jets may create an additional fire hazard. If a leak or spill has not ignited, use water spray to disperse the vapors and to protect personnel attempting to stop a leak. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Full-face, self-contained breathing apparatus should be worn at all times. Use water spray to cool fire exposed surfaces and to protect personnel.

6. ACCIDENTAL RELEASE MEASURES

Protective Equipment: Recommended to wear chemical splash goggles & resistant gloves and discard of gloves that show tears, pinholes, or signs of wear. Wear proper garments to prevent skin exposure, such as long-sleeves and pants.



Safety Data Sheet

REMA Tire Repair Materials

Product #s: 20(TT-05), 21(TT-01), 22(TT-02),
23(TT-06), 24(TT-04), 5060160

SDS #: RTT-TRM-090

Rev. # 3

Rev. Date: 12/10/2014

Personal Precautions: Persons not wearing proper PPE should be excluded from the area of contamination until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources and pay attention to the spreading of gases, especially at ground level.

Environmental Precautions: Do not allow discharge into drains, surface waters, or sanitary sewer system. Prevent spreading over a wide area by constructing a dike or using oil barriers. Local authorities should be advised if significant spillages cannot be contained or if material discharges into drains or ground water.

Methods & Materials for Clean-Up: Immediately evacuate the spilled area and provide maximum ventilation. Only personnel equipped with proper eye, and skin protection should be permitted in the area. Eliminate all ignition sources from the area. All equipment used when handling the product must be grounded. Use clean, non-sparking tools to collect absorbed material. Construct a dike to contain spill. Contain spilled material with inert, non-combustible absorbent materials such as sand, earth, diatomaceous earth, or vermiculite. After all visible traces have been removed, thoroughly wet vacuum the area. Do not allow spilled material to enter public drainage system or open water courses. Transfer to a suitable container for disposal according to proper federal, state, and local regulations. Notify the proper response units and agencies for any uncontained releases or spills.

7. HANDLING AND STORAGE

Handling: Containers of this material may be hazardous when emptied. Since emptied containers still contain product residues (vapor, liquid, or solid), all hazard precautions given in this SDS must be observed. Prevent exposure to ignition sources. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting, and other equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not cut, drill, grind, weld or perform similar operations on or near containers.

Avoid breathing vapors or mists of this product. Use product with adequate ventilation. Avoid eye and skin contact with this material. Skin and eye PPE should be worn at all times when handling this product. When adequate ventilation is not provided, respiratory PPE should also be used. Hands and other exposed areas should be washed thoroughly with soap and water after contact, especially before eating and/or smoking. Do not eat, drink or smoke when using this product.

Storage: Store in a cool, dry, ventilated area, away from heat and ignition sources as well as from incompatible materials (see below). Keep container tightly closed and store locked up. Keep away from food, drink, and animal foodstuffs.

Incompatible Materials: Strong oxidizing agents



Safety Data Sheet

REMA Tire Repair Materials

Product #s: 20(TT-05), 21(TT-01), 22(TT-02),
23(TT-06), 24(TT-04), 5060160

SDS #: RTT-TRM-090

Rev. # 3

Rev. Date: 12/10/2014

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits :

Exposure limits have not been established for this product.

Naphtha, petroleum, hydrotreated

CAS # 64742-49-0

| | | |
|-------|----------------------------------|---------------------|
| ACGIH | Time Weighted Average (TWA) | 5 mg/m ³ |
| NIOSH | Recommended Exposure Limit (REL) | 5 mg/m ³ |

n-Hexane

CAS # 110-54-3

| | | |
|-------|----------------------------------|------------------------------------|
| OSHA | Permissible Exposure Limit (PEL) | 500 ppm (1,800 mg/m ³) |
| ACGIH | Time Weighted Average (TWA) | 50 ppm (176 mg/m ³) |
| NIOSH | Recommended Exposure Limit (REL) | 50 ppm (176 mg/m ³) |

Engineering Controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposures below permissible exposure limits. Provide readily accessible eye wash stations and safety showers.

Occupational Exposure Controls: Ensure adequate ventilation, especially in confined areas. Consider all potential hazards of this material, applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting PPE. Ensure that eyewash stations and safety showers are proximal to the work location. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Protective and Hygiene measures: Do not inhale vapors. Wash hands before breaks and immediately after handling product. When using, do not eat, drink, or smoke. In case of clothes contamination, remove and wash contaminated clothing before re-use.

Eye Protection: Recommended to wear tight fitting, chemical splash goggles when there is potential for the exposure of the eyes to the liquid, vapor or mist. Have a suitable eye wash station or bottle nearby in case of splashing into the eyes.

Hand Protection: Recommended to wear suitable resistant gloves and discard of gloves that show tears, pinholes, or signs of wear. Suitable gloves will be based on product use and the period of use.

Skin Protection: Recommended to wear long-sleeved clothing, pants and proper foot covering in order to prevent direct skin contact with the product. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Respiratory Protection: A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-



Safety Data Sheet

REMA Tire Repair Materials

Product #s: 20(TT-05), 21(TT-01), 22(TT-02),
23(TT-06), 24(TT-04), 5060160

SDS #: RTT-TRM-090

Rev. # 3

Rev. Date: 12/10/2014

purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Beige Liquid

Odor: Hydrocarbon-like

Odor Threshold: No data available

pH: No data available

Melting/Freezing point: < -58°F (< -50°C)

Boiling Point/ Range: > 140°F (> 60°C)

Flash point (Tag closed cup): -22°F (-8°C)

Evaporation rate: > 3 n-Butyl Acetate

Flammability: Lower Limit: 1.0% (V) **Upper Limit:** 7.4% (V)

Vapor pressure: 240 hPa @ 68°F (20°C)

Relative vapor density: > 3 (Air = 1)

Density: 0.72 g/cm³ (6.0 lbs/gal) @ 68°F (20°C)

Solubility in water: Insoluble

Partition coefficient (n-octanol/water): No data available

Auto-ignition temperature: 540°F (280°C)

Ignition temperature: 500°F (260°C)

Decomposition temperature: No data available

Viscosity (dynamic): No data available

10. STABILITY AND REACTIVITY

Reactivity: No decomposition if stored and applied as directed.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Product will not undergo hazardous polymerization or other hazardous reactions if storage and use directions are followed.

Conditions to Avoid: Heat, Sparks, Open flames, Other ignition sources

Incompatible Materials: Strong oxidizing agents

Hazardous decomposition products: Hydrocarbons, Carbon monoxide, Carbon dioxide



Safety Data Sheet

REMA Tire Repair Materials

Product #s: 20(TT-05), 21(TT-01), 22(TT-02),
23(TT-06), 24(TT-04), 5060160

SDS #: RTT-TRM-090

Rev. # 3

Rev. Date: 12/10/2014

11. TOXICOLOGICAL INFORMATION

Primary Routes of Exposure: Inhalation, Skin contact, Eye contact, Ingestion

Symptoms Related to Physical, Chemical and Toxicological Characteristics: Irritation of the nose and airways, central nervous system depression, nausea, dizziness, drowsiness, weakness, fatigue, headache, lack of coordination, coma, skin irritation, redness, burning, drying, cracking of the skin, dermatitis, eye irritation, stinging, tearing, redness, swelling of the eyes, and stomach or intestinal irritation. Swallowing large amounts may cause for material to enter the lungs during swallowing or vomiting, leading to lung inflammation and other lung damages.

Delayed and Immediate Effects & Chronic Effects from Exposure: This product may result in central nervous system depression, with symptoms such as nausea, dizziness and drowsiness. This substance may cause reproductive harm or damage to the unborn child. This substance is not a suspected carcinogen as outlined by OSHA, IARC, ACGIH and the NTP (see below).

Measures of Toxicity:

Acute toxicities are calculated based on component toxicities

Mixture: Acute Oral Toxicity: LD₅₀ Rat: > 5,000 mg/kg

Acute Dermal Toxicity: LD₅₀ Rabbit: > 2,000 mg/kg

Acute Inhalation Toxicity: No sufficient data available

Naphtha, petroleum, hydrotreated

CAS # 64742-49-0

Acute Oral Toxicity LD₅₀ Rat: > 15,000 mg/kg

Acute Dermal Toxicity LD₅₀ Rabbit: > 3,000 mg/kg

n-Hexane

CAS # 110-54-3

Acute Oral Toxicity LD₅₀ Rat: 25,000 mg/kg

Acute Inhalation Toxicity LC₅₀ Rat: 48,000 ppmV

Carcinogen Claims:

OSHA: **None**

International Agency for Research on Cancer (IARC): **None**

ACGIH: **None**

National Toxicology Program (NTP) Report on Carcinogens: **None**

12. ECOLOGICAL INFORMATION

Eco-toxicity: This substance is toxic to aquatic organisms with long lasting effects. It is strongly advised that this substance does not enter the environment. Local authorities should be advised if significant spillages cannot be contained or if material discharges into drains or ground water.



Safety Data Sheet

REMA Tire Repair Materials

Product #s: 20(TT-05), 21(TT-01), 22(TT-02),
23(TT-06), 24(TT-04), 5060160

SDS #: RTT-TRM-090

Rev. # 3

Rev. Date: 12/10/2014

Persistence & Degradability: No data available

Bio-accumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with Federal, State or Local regulations.
Contaminated packaging should be emptied as far as possible before disposal.

14. TRANSPORT INFORMATION

DOT SHIPPING CLASSIFICATION:

UN NUMBER: UN1133

PROPER SHIPPING NAME: Adhesives, containing a flammable liquid (Naphtha)

TRANSPORTATION HAZARD CLASS: 3

PACKING GROUP: II

HAZARD LABEL: Flammable Liquid

IMDG (Marine) SHIPPING CLASSIFICATION:

IMDG CODE: 3

UN NUMBER: UN1133

MARINE POLLUTANT: Yes

EmS: F-E; S-D

IMDG PACKING GROUP: II

HAZARD LABEL: Flammable Liquid

Description of the goods

ADHESIVES containing flammable liquid (Naphtha)

IATA (Air) SHIPPING CLASSIFICATION:

ICAO/IATA-DGR: 3

UN NUMBER: UN1133

HAZARD LABEL: Flammable Liquid

Description of the goods

Adhesives, containing flammable liquid (Naphtha)

15. REGULATORY INFORMATION

All components of this product conform to the following national inventory requirements. US TSCA, EU EINECS and Canada DSL



Safety Data Sheet

REMA Tire Repair Materials

Product #s: 20(TT-05), 21(TT-01), 22(TT-02),
23(TT-06), 24(TT-04), 5060160

SDS #: RTT-TRM-090

Rev. # 3

Rev. Date: 12/10/2014

SARA Title III

Section 302 – Extremely Hazardous Chemicals

The following ingredients are subject to the supplier notification requirements of Section 302 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 37

None Listed

Section 313 – Toxic Chemicals

The following ingredients are subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 37

| Component | CAS # | Weight % | CERCLA RQ |
|-----------|----------|----------|-----------|
| n-Hexane | 110-54-3 | < 4 | 5,000 |

OTHER FEDERAL REGULATIONS

Components of this product are subject to RCRA Hazardous Waste requirements.
Clean Air Act (CAA) Hazardous Air Pollutants requirements and OSHA Process Safety Management (PSM) high hazard requirements.

CANADIAN REGULATIONS

WHMIS Classification: B2, D2B (Based on components)

STATE REGULATIONS

California Proposition 65

This product does not contain chemicals known to the state of California to cause cancer, birth defects, or reproductive harm.

The components of this product may be included on the various state hazardous materials lists noted below.

California Hazardous Substances List
Delaware Air Quality Management List
Idaho Air Pollutants List
Illinois Toxic Air Contaminants List
Maine Hazardous Air Pollutants List
Massachusetts Hazardous Substances List
Michigan Critical Materials List
Minnesota Hazardous Substances List
New Jersey RTK Hazardous Substances List
New Jersey TCPA Extremely Hazardous Substances List
New York List of Hazardous Substances
North Carolina Toxic Air Contaminants List
Pennsylvania Hazardous Substances List
Washington Permissible Exposure Air Contaminants List



Safety Data Sheet

REMA Tire Repair Materials

Product #s: 20(TT-05), 21(TT-01), 22(TT-02),
23(TT-06), 24(TT-04), 5060160

SDS #: RTT-TRM-090

Rev. # 3

Rev. Date: 12/10/2014

West Virginia Air Toxic Pollutants List
Wisconsin Hazardous Air Contaminants List

Note: Entries under Section 15 are not intended to be all inclusive of Federal and State laws and regulations. Please consult the appropriate agencies for further clarification of any requirements.

16. OTHER INFORMATION

This SDS conforms to the OSHA Hazard Communication Standard 1910.1200 published in the Federal Register March 26, 2012

MEDICAL EMERGENCIES:

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

FOR ANY OTHER INFORMATION:

REMA TIP TOP - NORTH AMERICA
119 Rockland Ave.
NORTHVALE, NJ 07647
201-256-8200

NOTICE: REMA TIP TOP NORTH AMERICA believes that the information contained on this 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, EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.

Date of Issue/Revision: December 10, 2014