**Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Material Name: BEST TEST Paper Cement

Manufacturer Information
Union Rubber, Inc.
232 Allen Street
P.O. Box 1040
Trenton, NJ 08606

Phone: 609-396-9328
Fax: 609-396-3587
Emergency: Chemtrec: 800-424-9300

**Section 2 - HAZARDS IDENTIFICATION**

NFPA Ratings: Health: 2 Fire: 3 Reactivity: 0

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

**EMERGENCY OVERVIEW**
- Color: pale, straw colored
- Physical Form: liquid
- Odor: pleasant odor
- Health Hazards: respiratory tract irritation, skin irritation, eye irritation, central nervous system depression
- Physical Hazards: Flammable liquid and vapor. Vapor may cause flash fire. Electrostatic charges may be generated by flow, agitation, etc.

**POTENTIAL HEALTH EFFECTS**

**Inhalation**
- Short Term: irritation, headache, drowsiness, dizziness, emotional disturbances, loss of coordination, fatigue, nausea, suffocation, unconsciousness
- Long Term: no information is available

**Skin**
- Short Term: irritation
- Long Term: irritation

**Eye**
- Short Term: irritation
- Long Term: irritation

**Ingestion**
- Short Term: gastrointestinal irritation, nausea, vomiting, diarrhea, stomach pain, headache, drowsiness, dizziness, emotional disturbances, loss of coordination, unconsciousness
- Long Term: no information is available

**Regulatory Status**
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This material is a controlled product under Canadian WHMIS regulations.

**Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>142-82-5</td>
<td>Heptane</td>
<td>87</td>
</tr>
<tr>
<td>9003-31-0</td>
<td>1,3-Butadiene, 2-methyl-, homopolymer</td>
<td>12.9</td>
</tr>
<tr>
<td>Not Available</td>
<td>Non-hazardous processing aids</td>
<td>0.1</td>
</tr>
</tbody>
</table>

**Component Related Regulatory Information**
This product may be regulated, have exposure limits or other information identified as the following: Heptane isomers.
**Section 4 - FIRST AID MEASURES**

**Inhalation**
If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

**Skin**
Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

**Eyes**
Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

**Ingestion**
If a large amount is swallowed, get medical attention.

**Note to Physicians**
For inhalation, consider oxygen.

**Section 5 - FIRE FIGHTING MEASURES**

**Flammable Properties**
Severe fire hazard. The vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Vapor/air mixtures are explosive. Electrostatic discharges may be generated by flow or agitation resulting in ignition or explosion.

**Extinguishing Media**
regular dry chemical, carbon dioxide, water spray, regular foam

**Protective Equipment and Precautions for Firefighters**
Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

**Fire Fighting Measures**
Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For fires in cargo or storage area: Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. If this is impossible then take the following precautions: Keep unnecessary people away, isolate hazard area and deny entry. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck: Evacuation radius: 800 meters (1/2 mile). Water may be ineffective.

**Hazardous Combustion Products**
Combustion: aldehydes, oxides of carbon

**Sensitivity to Mechanical Impact**
Not sensitive

**Sensitivity to Static Discharge**
Yes

**Section 6 - ACCIDENTAL RELEASE MEASURES**

**Occupational spill/release**
Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Reduce vapors with water spray. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Large spills: Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry.

**Handling Procedures**
Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Keep away from heat, sparks and flame.
Material Safety Data Sheet

Material Name: BEST TEST Paper Cement

Storage Procedures

* * *Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION* * *

Component Exposure Limits
Heptane (142-82-5)

<table>
<thead>
<tr>
<th></th>
<th>ACGIH:</th>
<th>NIOSH:</th>
<th>Europe:</th>
<th>OSHA (US):</th>
<th>Mexico:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>400 ppm TWA</td>
<td>85 ppm TWA</td>
<td>500 ppm TWA</td>
<td>500 ppm TWA</td>
<td>400 ppm TWA</td>
</tr>
<tr>
<td></td>
<td>500 ppm STEL</td>
<td>350 mg/m3 TWA</td>
<td>2085 mg/m3 TWA</td>
<td>2000 mg/m3 TWA</td>
<td>1600 mg/m3 TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>440 ppm Ceiling (15 min)</td>
<td>1800 mg/m3 Ceiling (15 min)</td>
<td>500 ppm STEL; 2000 mg/m3 STEL</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skin - potential for cutaneous absorption

Ventilation
Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face
Wear splash resistant safety goggles with a faceshield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Protective Clothing
Wear appropriate chemical resistant clothing.

Glove Recommendations
Wear appropriate chemical resistant gloves.

Respiratory Protection
Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum.
Consider warning properties before use.
Any chemical cartridge respirator with organic vapor cartridge(s).
Any chemical cartridge respirator with a full facepiece and organic vapor cartridge(s).
Any air-purifying respirator with a full facepiece and an organic vapor canister.

For Unknown Concentrations or Immediately Dangerous to Life or Health -
Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.
Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.
**Section 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color:</td>
<td>pale, straw colored</td>
</tr>
<tr>
<td>Odor:</td>
<td>pleasant odor</td>
</tr>
<tr>
<td>pH:</td>
<td>essentially neutral</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>92-100 ºC</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>4.5 (butyl acetate=1)</td>
</tr>
<tr>
<td>UEL:</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density (air = 1):</td>
<td>~3.5</td>
</tr>
<tr>
<td>Specific Gravity (water = 1):</td>
<td>0.70</td>
</tr>
<tr>
<td>Coeff. Water/Oil Dist:</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>6.5 (Gardner scale)</td>
</tr>
<tr>
<td>Volatility:</td>
<td>91 % @25 ºC</td>
</tr>
<tr>
<td>Appearance:</td>
<td>pale, straw colored, liquid</td>
</tr>
<tr>
<td>Physical Form:</td>
<td>liquid</td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting/Freezing Point:</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>-6.7 ºC</td>
</tr>
<tr>
<td>LEL:</td>
<td>1.1 % (estimated)</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>~40 mmHg @20 ºC</td>
</tr>
<tr>
<td>Density:</td>
<td>Not available</td>
</tr>
<tr>
<td>Water Solubility:</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto Ignition:</td>
<td>Not available</td>
</tr>
<tr>
<td>VOC:</td>
<td>5.04 lbs/gal</td>
</tr>
</tbody>
</table>

**Section 10 - STABILITY AND REACTIVITY**

**Chemical Stability**
Stable at normal temperatures and pressure.

**Conditions to Avoid**
Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat. Keep out of water supplies and sewers.

**Materials to Avoid**
calcium hypochlorite, combustible materials, concentrated oxygen, liquid chlorine, oxidizing materials, sodium hypochlorite

**Hazardous Decomposition**
Combustion: aldehydes, oxides of carbon

**Possibility of Hazardous Reactions**
Will not polymerize.

**Section 11 - TOXICOLOGICAL INFORMATION**

**Component Analysis - LD50/LC50**
The components of this material have been reviewed in various sources and the following selected endpoints are published:

- **Heptane (142-82-5)**
  - Inhalation LC50 Rat 103 g/m3 4 h; Oral LD50 Mouse 5000 mg/kg; Dermal LD50 Rabbit 3000 mg/kg

**Component Carcinogenicity**
None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA.

**Irritation**
Causes skin, eye and respiratory irritation.

**Target Organs**
central nervous system

**Medical Conditions Aggravated by Exposure**
respiratory disorders, skin disorders and allergies

**Tumorigenic**
No data available for the mixture.

**Mutagenic**
No data available for the mixture.

**Reproductive Effects**
No data available for the mixture.
**Section 12 - ECOLOGICAL INFORMATION**

Component Analysis - Aquatic Toxicity

- **Heptane (142-82-5)**
  - **Fish**: 96 Hr LC50 Cichlid fish: 375.0 mg/L
  - **Invertebrate**: 24 Hr EC50 Daphnia magna: >10 mg/L

**Section 13 - DISPOSAL CONSIDERATIONS**

**Disposal Methods**
Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262.

**Hazardous Waste Number(s)**: D001.

**Component Waste Numbers**
The U.S. EPA has not published waste numbers for this product's components.

**Section 14 - TRANSPORT INFORMATION**

**US DOT Information (49 CFR)**
- **Shipping Name**: Adhesives
- **UN/NA #**: UN1133  **Hazard Class**: 3  **Packing Group**: II
- **Required Label(s)**: 3

**TDG Information**
- **Shipping Name**: Adhesives
- **UN #**: UN1133  **Hazard Class**: 3  **Packing Group**: II
- **Required Label(s)**: 3

**IATA Information**
- **Shipping Name**: Adhesives
- **UN #**: UN1133  **Hazard Class**: 3  **Packing Group**: II
- **Required Label(s)**: 3

**Section 15 - REGULATORY INFORMATION**

**U.S. Federal Regulations**
This material contains one or more of the following chemicals required to be identified under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

- **Heptane (142-82-5)**
  - **TSCA 12b**: Section 4, 1 % de minimus concentration

**SARA 311/312**
- **Acute Health**: Yes  **Chronic Health**: No  **Fire**: Yes  **Pressure**: No  **Reactive**: No

**U.S. State Regulations**
The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>CA</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
<th>RI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heptane</td>
<td>142-82-5</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Not regulated under California Proposition 65

**Canada**
This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.
Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which fall under WHMIS criteria specified in the Controlled Products Regulations and present above the threshold limits listed on the IDL.

Heptane (142-82-5)
1%

WHMIS Classification
B2, D2B.

U.S. Inventory (TSCA)
All the components of this substance are listed on or are exempt from the inventory.

Component Analysis - Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>US</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heptane</td>
<td>142-82-5</td>
<td>Yes</td>
<td>DSL</td>
</tr>
<tr>
<td>1,3-Butadiene, 2-methyl-, homopolymer</td>
<td>9003-31-0</td>
<td>Yes</td>
<td>DSL</td>
</tr>
</tbody>
</table>

**Section 16 - OTHER INFORMATION**

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

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New MSDS 5/20/2011
MSDS Update 7/19/2011

End of Sheet UR-002