1. IDENTIFICATION

Product Identifier
Product Name Blacktop & Roof Repair – Solvent Based - Black

Other means of identification
SDS # RD-0049
UN/ID No NA1993
Product Code 0636 Series

Recommended use of the chemical and restrictions on use
Recommended Use No information available.

Details of the supplier of the safety data sheet
Supplier Address Red Devil, Inc.
4175 Webb Street
Pryor, Oklahoma 74361
www.reddevil.com

Emergency Telephone Number
Company Phone Number 918-825-5744
Fax: 918-825-5761
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Black Physical State Paste Odor Solvent

Classification

| Flammable Liquids | Category 4 |

Hazards Not Otherwise Classified (HNOC)
May be harmful in contact with skin

Hazard Statements
Combustible liquid

Precautionary Statements - Prevention
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
IN CASE OF FIRE: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store in a well-ventilated place. Keep cool.

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Asphalt</td>
<td>8052-42-4</td>
<td>&lt;40</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>1317-65-3</td>
<td>&lt;30</td>
</tr>
<tr>
<td>Non-hazardous Ingredients*</td>
<td>Proprietary</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Light aliphatic solvent naphtha</td>
<td>64742-48-9</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Attapulgite Clay</td>
<td>12174-11-7</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Cellulose Fiber</td>
<td>9004-34-6</td>
<td>&lt;5</td>
</tr>
</tbody>
</table>

*Unlisted ingredients are not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200). (Calcium Carbonate, Attapulgite and Cellulose) Inhalation of particulates unlikely due to product’s physical state.

4. FIRST-AID MEASURES

First Aid Measures

General Advice
Provide this SDS to medical personnel for treatment. Get medical attention for any significant overexposure.

Eye Contact
Immediately flush w/ large quantities of water for @ least 15 minutes, until irritation subsides. Get medical attention.

Skin Contact
Immediately remove from skin by wiping w/ waterless hand cleaner, followed by soap & water. Get medical attention if symptoms persist.

Inhalation
Remove to fresh air. If breathing difficult, leave area to obtain fresh air. If breathing remains difficult, get medical attention immediately. If there are symptoms of hydrogen sulfide exposure, move to fresh air. If breathing has stopped, apply artificial respiration & get immediate medical attention.

Ingestion
Do not induce vomiting unless advised by a physician. Call nearest poison control center or physician immediately. Never give anything by mouth to an unconscious person. If possible, drink milk afterwards. Harmful or fatal if liquid aspirated into lungs. If swallowed, drink 8 to 10 oz water & get immediate medical attention.

Most important symptoms and effects
**Symptoms**

Inhalation: Vapor harmful. Inhalation may result in irritation to nose, mouth & mucous membranes. Vapors may be irritating to eyes, nose, throat & lungs. Inhalation of high vapor concentrations can cause central nervous system depression & narcosis. May contain sulphur compounds that may form hydrogen sulfide. The “rotten eggs” odor of hydrogen sulfide is not reliable as an indicator of concentration. Signs/symptoms of over exposure to hydrogen sulfide include respiratory tract irritation, headache, dizziness, nausea, gastrointestinal disturbances, coughing & a sensation of dryness & pain in the nose, throat & chest, confusion & unconsciousness.

Eyes: May cause eye irritation, characterized by a burning sensation, tearing, inflammation & redness. Signs/symptoms may include tears, pain, swelling, redness & blurred vision.

Ingestion: Harmful or fatal if swallowed.

Skin: May cause skin irritation. Harmful if absorbed through skin. Signs/symptoms may include pain, discoloration & swelling. Prolonged or repeated contact can result in dermatitis or burns. Do not attempt to peel solidified material from skin or use solvents to aid removal. Use vegetable oil to aid removal from skin. Rinse exposed area w/ water while removing contaminated clothing.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician**

Provide general supportive measures and treat symptomatically. Aggravated Medical Conditions: Pre-existing eye, skin & respiratory disorders may be aggravated by exposure.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Carbon dioxide (CO2). Dry chemical. Water spray (fog). Foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

If fire fighting necessary, do not use a solid stream of water as stream will scatter/spread the fire.

**Specific Hazards Arising from the Chemical**

Fire & Explosion Conditions: Product not expected to ignite in normal conditions of use. Heating may release Hydrogen Sulfide Gas.

**Hazardous Combustion Products**

Smoke, fumes. Carbon monoxide & carbon dioxide can form.

**Sensitivity to Static Discharge**

Take precautionary measures against static discharge.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray to keep fire-exposed containers cool.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions**

Wear protective clothing as described in Section 8 of this safety data sheet.

**Other Information**

Small Spills: 1 drum or less – Level D Equipment (gloves, chemical resistant apron, boots & eye protection).

Large Spills: Rubber gloves, rubber boots, face shield & Tyvek suit as a minimum. Minimum level of PPE for releases in which the oxygen level is < 19.5% or is unknown, should be Level B: triple gloves (rubber gloves & nitrile gloves over latex gloves), chemical resistant suit, fire-retardant clothing & boots, hard hat & self-contained breathing apparatus.

**For Emergency Responders**

Restrict access to spill area.
Environmental Precautions
Minimize use of water to prevent environmental contamination. Prevent spill or rinse from contaminating storm drains, sewers, soil or groundwater. Do not allow discharge containing this material to enter streams, ponds, estuaries, oceans or other waters unless in accordance w/ requirements of National Pollutant Discharge Elimination System (NPDES) permit & permitting authority has been notified in writing prior to discharge. Do not allow discharge containing this material to enter sewer systems w/o previously notifying local sewage treatment plant authority. For information, contact State Water Board or EPA Regional Office
Other: U.S. regulations may require reporting of spills of this material reaching surface waters if sheen is formed. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment
Prevent further leakage or spillage if safe to do so. Use absorbent material to contain spill.

Methods for Clean-Up
Use clean non-sparking tools to collect absorbed material. Sweep up absorbed material and shovel into suitable containers for disposal. Wash area with soap and water. For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling
Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Provide fresh air to extent that chemical odors cannot be detected during use & drying. Do not breathe vapors. Wear eye/face protection. Wash thoroughly with soap and water after handling. Avoid contact with skin, eyes or clothing. While handling product keep out of reach of children and pets. Do not eat or drink while handling this material. See section 6 of this SDS for clean up instructions. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Ground/bond container and receiving equipment. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges. Keep cool.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed and store in a cool, dry and well-ventilated place. Store away from incompatible materials. Protect from direct sunlight.

Incompatible Materials
Strong oxidizing agents, Caustics.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
Exposure guidelines / protective equipment are for routine handling and accidental spills

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Asphalt</td>
<td>TWA: 0.5 mg/m³ benzene soluble aerosol fume, inhalable fraction</td>
<td>-</td>
<td>Ceiling: 5 mg/m³ fume 15 min</td>
</tr>
<tr>
<td>8052-42-4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td></td>
<td>TWA: 15 mg/m³ total dust</td>
<td>TWA: 10 mg/m³ total dust</td>
</tr>
<tr>
<td>1317-65-3</td>
<td>-</td>
<td>TWA: 5 mg/m³ respirable fraction (vacated)</td>
<td>TWA: 5 mg/m³ respirable dust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 15 mg/m³ total dust</td>
<td>TWA: 5 mg/m³ total dust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(vacated) TWA: 5 mg/m³ respirable fraction</td>
<td></td>
</tr>
<tr>
<td>Attapulgite Clay</td>
<td>TWA: 1 mg/m³ respirable fraction</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12174-11-7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appropriate engineering controls

Engineering Controls

Provide sufficient general &/or local exhaust ventilation to maintain exposure below recommended exposure limits. Vapors are heavier than air & may spread along floors. Provide fresh air entry during application & curing. Safety shower & eyewash should be in immediate area.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Goggles or safety glasses w/ side shields. Note: Contact lenses pose a special hazard; soft lenses may absorb & all lenses concentrate irritants. Safety shower & eyewash should be in immediate area.

Skin and Body Protection

Prevent contact w/ shoes & clothing. If repeated or prolonged contact likely, wear protective clothing, including boots, apron & face shield or splash goggles.

Hand Protection: Neoprene gloves.

Respiratory Protection

Not required under normal conditions of use. Wear appropriate, properly fitted NIOSH/MSHA approved organic vapor or supplied air respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on SDS. Follow manufacturer’s directions for respirator use.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Remove & wash contaminated clothing before reuse. Wash hands before breaks & @ end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Note: The information below is not intended for use in preparing product specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Paste</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Odor</td>
<td>Solvent</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Remarks + Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not established</td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash Point</td>
<td>~ 71.11 °C  /  ~ 160 °F CC (closed cup)</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (Solid, Gas)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper Flammability Limits</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Heavier than air</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>~1.00-1.50 (calculated)</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble in water</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Not determined</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

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10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization
Hazardous polymerization does not occur.

Conditions to Avoid

Incompatible Materials
Strong oxidizing agents, Caustics.

Hazardous Decomposition Products
Nitrogen oxides (NOx). Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact
Eye contact may result in tearing, redness & pain.

Skin Contact
Repeated skin contact may cause dermatitis. May be harmful in contact with skin.

Inhalation
May cause irritation of respiratory tract.

Ingestion
May cause gastrointestinal irritation, nausea, diarrhea, and vomiting.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50 (Rat)</th>
<th>Dermal LD50 (Rabbit)</th>
<th>Inhalation LC50 (Rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Asphalt 8052-42-4</td>
<td>&gt; 5000 mg/kg</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Light aliphatic solvent naphtha</td>
<td>&gt; 5000 mg/kg</td>
<td>&gt; 3160 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>64742-48-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cellulose Fiber 9004-34-6</td>
<td>&gt; 5 g/kg (Rat)</td>
<td>&gt; 2 g/kg (Rabbit)</td>
<td>&gt; 5800 mg/m³ (Rat) 4 h</td>
</tr>
</tbody>
</table>

Information on physical, chemical and toxicological effects

Symptoms
Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
Not known to be human skin or respiratory sensitizers.
Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen. CAS #8052-42-4 Bitumens, occupational exposure to straight-run bitumens and their emissions during road paving. Attapulgite Clay is a possible carcinogen when it appears as a respirable dust. Inhalation of crystalline silica as quartz (small percentage present in calcium carbonate filler) can cause cancer based on animal data. IARC concludes sufficient evidence in humans (Group 1). Prolonged & repeated overexposure to free crystalline silica dust above TLV level may cause scarring of the lungs, coughing & shortness of breath. Note: Inhalation of crystalline silica from normal use is unlikely, due to products physical state.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Asphalt</td>
<td></td>
<td>Group 2B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8052-42-4</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Attapulgite Clay</td>
<td></td>
<td>Group 2B</td>
<td>Group 3</td>
<td>X</td>
</tr>
<tr>
<td>12174-11-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
Group 3 IARC components are "not classifiable as human carcinogens"

OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Target organ effects
Acute: Eyes & Skin. Chronic: Skin.

Numerical measures of toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light aliphatic solvent naphtha</td>
<td>64742-48-9</td>
<td>2200</td>
<td>96 h Pimephales promelas mg/L LC50</td>
<td>2.6: 96 h Chaetogammarus marinus mg/L LC50</td>
</tr>
</tbody>
</table>

Persistence/Degradability
Not tested for persistence & biodegradability

Bioaccumulation
Not tested for bio-accumulation potential

Mobility

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Partition Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Asphalt</td>
<td>≥6</td>
</tr>
<tr>
<td>8052-42-4</td>
<td></td>
</tr>
</tbody>
</table>

Other Adverse Effects
Environmental Exposure Controls: Should be maintained so as to prevent release to the environment (atmospheric release, release to waterways & spills)
13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging
Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number
Not Applicable

14. TRANSPORT INFORMATION

Note
According to 49 CFR §173.150(f)(1), this material should reclassified as NA1993, Combustible Liquid, NOS if it is shipped in bulk.

DOT
UN/ID No
Not regulated
NA1993

IATA
Not regulated

IMDG
Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Listed
DSL Listed
NDSL Listed

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard Yes

SARA 313
Not determined
US State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attapulgite Clay - 12174-11-7</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Asphalt</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>8052-42-4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>1317-65-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cellulose Fiber</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>9004-34-6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>0</td>
<td></td>
<td>Not determined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>0</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Issue Date: 03-Sep-2013
Revision Date: 01-Oct-2017
Revision Note: New format

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet