Material Safety Data Sheet

SECTION 1 – PRODUCT NAME & MANUFACTURER INFORMATION

PRODUCT NAME: Fire Block Expanding Polyurethane Foam – Aerosol Cans

MANUFACTURER’S NAME & TELEPHONE NUMBER: Red Devil, Inc.

STREET ADDRESS: 4175 Webb Street

CITY / STATE / ZIP: Pryor, Oklahoma 74361

SECTION 2 – COMPOSITION / HAZARDOUS INGREDIENTS

Methylenediphenyl disocyanate isomers (Polymeric MDI) (9016-87-9)  
4,4’ – methylenediphenyl disocyanate (MDI) (101-68-8)  
Dimethyl ether (115-10-6)  
Propane (74-98-6)  
Butane (106-97-8)  
Isobutane (75-28-5)  
Urethane Pre-polymer Blend (CAS No. not available) (Non-Haz proprietary polyol blend)

%  LD50  LC50  UNITS

< 30  NA  NA
< 30  NA  NA
< 15  NA  NA
0 to 20  NA  NA
0 to 20  NA  NA
25 to 50  NA  NA


Calculated VOC Content: ~ 170 g/L. CARB Compliance: Exempt. Prop 65 Ingre: No.

SECTION 3 – HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY:  
- Skin Contact  
- Skin Absorption  
- Eye Contact  
- Inhalation  
- Ingestion

EMERGENCY OVERVIEW: DANGER! Extremely flammable aerosol. Harmful by inhalation, in contact w/ skin or when swallowed. Irritating to eyes & skin. Prolonged exposure may result in chronic effects. May result in sensitization w/ skin contact.

EFFECTS OF OVEREXPOSURE:  
- Inhalation: Vapors may irritate mucus membranes w/ tightness in chest, coughing, wheeziness or allergic asthma-like sensitivity. Overexposure to gases may result in light headiness, headaches or lethargy. Skin Contact: May cause localized skin irritation, redness. Eye Contact: Causes eye irritation. For its adhesive feature, foam contact w/ eyes may result in physical damage due to adhesive properties. Ingestion: Harmful if swallowed.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

SECTION 4 – FIRST AID MEASURES

SKIN CONTACT: Use rag to remove excess foam. Remove contaminated clothing. Remove uncured foam from skin using a delicate solvent such as acetone or mineral spirits (avoid eye contact). Hardened foam may be removed by persistent washing w/ soap & water. If irritation develops, use a delicate cream. Seek medical attention. Wash clothing separately prior to reuse.

EYE CONTACT: Flush w/ clean water for @ least 15 minutes. Remove contact lenses if easy to do. Seek medical attention.

INHALATION: Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled material. Induce artificial respiration w/ aid of a pocket mask equipped w/ a one-way valve or other proper respiratory medical device. Seek medical attention.

INGESTION: Rinse mouth. Do not induce vomiting unless advised by medical personnel & do not use mouth-to-mouth if victim ingested material. Induce artificial respiration w/ aid of a pocket mask equipped w/ a one-way valve or other proper respiratory medical device. If swallowed, seek medical attention & show MSDS or label.
SECTION 5 – FIRE FIGHTING MEASURES

<table>
<thead>
<tr>
<th>Flammable</th>
<th>Yes</th>
<th>No</th>
<th>Extremely flammable aerosol.</th>
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<tbody>
<tr>
<td>Extinguishing Media</td>
<td>Large fires: Dry chemical, foam or water spray. Small fires: CO2, dry chemical or water spray.</td>
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<tr>
<td>Flashpoint (°F) &amp; Method</td>
<td>~ 32F (0°C) - propellant</td>
<td></td>
<td></td>
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<tr>
<td>Lower Explosive Limit (% by Volume)</td>
<td>1.5 Vol. %</td>
<td></td>
<td></td>
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<tr>
<td>Upper Explosive Limit (% by Volume)</td>
<td>11.0 Vol. %</td>
<td></td>
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<tr>
<td>Autoignition Temperature (°F)</td>
<td>NE</td>
<td></td>
<td></td>
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<tr>
<td>Unusual Fire &amp; Explosion Hazards</td>
<td>In event of fire, cool tanks w/ water spray. Move containers from fire area if can be done w/o risk. Self-contained breathing apparatus &amp; full protective clothing must be worn.</td>
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<tr>
<td>Special Firefighting Procedures</td>
<td>Hardened foam is an organic matter &amp; will burn in the presence of sufficient heat, oxygen &amp; ignition source.</td>
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SECTION 6 – ACCIDENTAL RELEASE MEASURES

| Procedures | Eliminate ignition sources. Local authorities should be advised if significant spillage cannot be contained. Ensure adequate ventilation. Keep individuals away from & upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces prior to entering & keep out of low areas. Do not contaminate water. |

SECTION 7 – HANDLING & STORAGE

| Handling Procedures & Equipment | Keep away from heat, spark, open flame & other ignition sources. |
| Storage Requirements | Store in a cool, dry place. Ideal storage temperature is 40 to 78F. Storage above 104F will shorten shelf life. Protect from freezing. Protect from heat. Contents under pressure; do not puncture. |

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

| Respiratory | Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release. When workers are facing concentrations above the exposure limit they should use appropriate certified respirators. Engineering Measures: Ensure adequate ventilation, especially in confined areas. Ventilation rates should be matched to conditions. |
| Eyewear | Protective eye wear; safety glasses as a minimum. |
| Clothing / Gloves | Impervious gloves & suitable work clothes; suitable protective clothing & protective gloves. |
| Hygienic Practices | Exercise good personal hygiene, wash thoroughly after each use. When using product, do not eat, drink or smoke. Avoid contact w/ eyes & skin. |

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

| Physical State | Aerosol – rapidly curing foam dispensed by gaseous propellant from aerosol container. | Odor & Appearance | Characteristic odor; Color: Shade of orange |
| Specific Gravity | NE | Vapor Density (Air=1) | NE |
| Evaporation Rate | NA | Boiling Range (°F) | NE |
| pH | NE | Solubility in Water | Insoluble; reacts w/ water. |
| Vapor Pressure (mm Hg) | NE | %/Wt Volatile (TNV) | NE |

SECTION 10 – STABILITY AND REACTIVITY

| Stability | Yes | No | Stable w/ storage & handling as directed. Stable in normal conditions. |
| Incompatibility | Yes | No | Incompatible w/ oxidizers, acids, bases, amines, water, aluminum, copper, alcohols & metal compounds. |
| Conditions to Avoid | Avoid storage in temperatures exceeding 104F (40C). Protect against mechanical shocks. Avoid heat & moisture. |
| Hazardous Polymerization/Hazardous Decomposition Products | Following application, polymerization occurs. No hazardous decomposition products known. |
### SECTION 11 – TOXICOLOGICAL INFORMATION / CARCINOGENICITY

**ACGIH**
Not listed as a carcinogen.

**OSHA**
Not listed as a carcinogen.

**IARC**
Not listed as a carcinogen.

**TSCA**

**DATA WITH POSSIBLE RELEVANCE TO HUMANS**
NE

### SECTION 12 – ECOLOGICAL INFORMATION

**AQUATIC TOXICITY**
Ecotoxicity/Environmental Effects; May cause long-term adverse effects in the environment. Not biodegradable.

### SECTION 13 – DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL**
This material & its container must be disposed of as hazardous waste. Must be incinerated in suitable incineration plant holding a permit delivered by competent authorities. Do not dispose of waste into sewer. Do not allow material to drain into water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA it is the responsibility of the user of the product to determine, at time of disposal, whether product meets RCRA criteria for hazardous waste.

### SECTION 14 – TRANSPORT INFORMATION

**SPECIAL SHIPPING INFORMATION**

### SECTION 15 – REGULATORY INFORMATION

**CERCLA – SARA HAZARD CATEGORY:** 40 CFR 302.4 (lbs)
Butane: 100, Diphenylmethane-4,4'-diisocyanate: 5,000, Dimethylthene: 100, Isobutane: 100, Propane: 100. Sec. 302 (Extremely Haz.): No. Sec. 311/312: No.

**SARA 313 Title III**
Toxic Chemical: De minimis concentration: CAS 101-68-8: 1%. CAS 9016-87-9: 1%.

**U.S. STATE REGS**
See Section 16.

**TSCA & DSL**
All ingredients listed on TSCA Inventory as well as Canadian Domestic Substances List: 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

### SECTION 16 – OTHER INFORMATION / SPECIAL PRECAUTIONS / LEGEND

**NFPA:** Fire: 4, Health: 2, Instability: 1. **HMIS:** Flammability: 4, Health: 2, Physical Haz.: 1. **Prop. 65:** Based on information currently available, product is not known to contain detectable amounts of any chemicals currently listed under California Proposition 65. **ECCN Number:** EAR99. **ECOLOGICAL INFORMATION**


Reviewed By: Larry Brandon
VP Technology & GM
April 9, 2013

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