1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:

<table>
<thead>
<tr>
<th>Trade Name/Synonyms</th>
<th>Product Number(s)</th>
<th>Net Explosive Weight (g, Maximum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hipel 914B</td>
<td>510568</td>
<td>n/a</td>
</tr>
</tbody>
</table>

This is a manufactured article.

Recommended Use/Restrictions on Use: Use per manufacturer's design and intended use only.

Manufacturer CAGE Code: 1TZ26

Pacific Scientific Energetic Materials Company
24908 Avenue Kearny
Valencia, CA
(661) 6001100 [6am-4:30pm MST]
(661) 600-1101 FAX
(831) 637-7876. [24-hr]
www.psemc.com

2. HAZARDS IDENTIFICATION

Only qualified personnel experienced in the management of explosives should handle or use.

<table>
<thead>
<tr>
<th>Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Hazards</strong></td>
</tr>
<tr>
<td>H201 – Explosive; mass explosion hazard</td>
</tr>
</tbody>
</table>

Signal Word: **DANGER**

Hazard Class: Explosive (Category 1.3)

Precautionary Statements

**General**

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat/sparks/open flames/hot surfaces. No Smoking.
P243 - Take precautionary measures against static discharge.
P250 - Do not subject to shock, impact, friction, electrostatic discharge, high pressure or high temperature.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P281 - Use personal protective equipment as required.
P283 - Wear fire/flame resistant/retardant clothing

Emergency Response
P370 - In case of fire: Evacuate area; Do not attempt to fight fires.
P372 - Explosion risk in case of fire.
P373 – DO NOT fight fire when fire reaches explosives.
P375 - Fire Fire Remotely due to risk of explosion
P380 - Evacuate area.

Storage
P401 - Store in accordance with federal, state and local regulations concerning storage and handling of explosives.

Disposal
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation concerning disposal of explosives.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>% of Article weight</th>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>% of Article weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Perchlorate</td>
<td>7790-98-9</td>
<td>232-235-1</td>
<td>≤95</td>
<td>Dioctyl adipate DOA (di(2-ethylhexyl) phthalate)</td>
<td>103-23-1</td>
<td>NE</td>
<td>≤1</td>
</tr>
<tr>
<td>Ferric Oxide</td>
<td>1309-37-1</td>
<td>215-168-2</td>
<td>≤4</td>
<td>Hydroxy terminated polybutadiene (HTPB) R-45M</td>
<td>7790-98-9</td>
<td>NE</td>
<td>≤1</td>
</tr>
<tr>
<td>CAO-14 (2,2'-methylenebis (4-methyl-6-tertiarybutyl phenol))</td>
<td>119-47-1</td>
<td>204-327-1</td>
<td>≤1</td>
<td>Isophorone Diisocyanate (IPDI)</td>
<td>4098-71-9</td>
<td>NE</td>
<td>≤1</td>
</tr>
</tbody>
</table>

Exact percentage is withheld as a trade secret in accordance with 29 CFR 1910.1200(i). No chemical is present in an amount greater than cut-off values per 29 CFR 1910.1200 (Appendix A). Product is sealed article preventing exposure to chemical mixture(s).

4. FIRST AID MEASURES

EYES: Not a hazard in normal industrial use. Seek medical attention if needed.
SKIN: Not a hazard in normal industrial use. Seek medical attention if needed.
INHALATION: Not a hazard in normal industrial use. Seek medical attention if needed.
INGESTION: Not a hazard in normal industrial use. Seek medical attention if needed.

Personnel in contact with damaged product or close proximity to units being functioned may be exposed to hazardous materials or combustion products. Treat as required and seek appropriate medical attention.
5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water
HAZARDOUS COMBUSTION PRODUCTS: Fragmentation, heat, and trace amounts of nitrogen and carbon oxides may be emitted during ignition.

6. ACCIDENTAL RELEASE MEASURES

If product seal ruptures, barricade area, eliminate ignition sources. Wet remaining material with water, soap/water solution or equivalent desensitizing solution. Keep spilled material wet to minimize ignition potential. Dispose of material and contaminated media as hazardous waste.

7. HANDLING AND STORAGE

HANDLING: Use and handling should be limited to experienced personnel qualified to manage explosives in accordance with applicable safety guidelines and regulations.
STORAGE: Store only in approved storage facilities. Keep product cool and dry in storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS: No regulatory limits apply; sealed article.
PERSONAL PROTECTIVE EQUIPMENT (PPE)
   EYE PROTECTION: Industrial safety glasses meeting ANSI Z87.1 standard or equivalent.
   GLOVES: Not required.
   CLOTHING: High cotton-content clothing (>65%), as well as conductive shoes or leg stat(s), wrist stat(s) and a static-dissipative coat are recommended to avoid static electricity build-up.
   RESPIRATORY PROTECTION: Not required.
   VENTILATION: Not required.
   OTHER PROTECTION: None indicated.

ENGINEERING CONTROLS: Grounding or other controls are recommended to reduce static electricity build-up.
EXPOSURE GUIDELINES: Measurable exposure is not likely for this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

   a) APPEARANCE: Red/Oxide, clay like and porous
   b) ODOR: Odorless
   c) ODOR THRESHOLD: Not Applicable
   d) pH @ 25°C: Not Applicable
   e) MELTING/FREEZING POINT: Not Applicable
   f) BOILING POINT: Not Applicable
   g) FLASH POINT: Not Applicable
10. STABILITY AND REACTIVITY

a) REACTIVITY: Stable when used and handled as designed.
b) CHEMICAL STABILITY: This explosive product is stable under normal conditions.
c) POSSIBILITY OF HAZARDOUS REACTIONS: Minimal when handled in accordance with manufacturer’s instruction.
d) CONDITIONS TO AVOID: Shock, impact, friction, electrostatic discharge, high pressure, high temperature, and/or open flame.
e) INCOMPATIBLE MATERIALS: Strong acids or bases.
f) HAZARDOUS DECOMPOSITION PRODUCTS: Fragmentation, heat, and trace amounts of nitrogen and carbon oxides may be emitted during ignition.

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS / TOXICOLOGY: Not applicable to product in present form.

12. ECOLOGICAL INFORMATION

Not applicable to product in present form.

13. DISPOSAL CONSIDERATIONS

FEDERAL WASTE CODES (product as manufactured):
D003 - reactive characteristic

WASTE DISPOSAL METHOD: Waste disposal should be in accordance with existing federal, state and local environmental laws.

14. TRANSPORT INFORMATION

This product is defined by the U.S. Department of Transportation (49 CFR 172.101). Shipping classification is in accordance with section 173.56.
Packaging: Package in accordance with the Competent Authority for the United States DOT Classification of Explosives approval.

15. REGULATORY INFORMATION

OSHA: Regulated under 29 CFR 1910.1200
TSCA: As a sealed device, TSCA listing is not required.
CERCLA RQ: 100 lbs. (45.4 kg) [D003 reactivity]
  - SARA - SECTION 302 TPQ: Not an Extremely Hazardous Substance.
  - SECTION 304 RQ: See CERCLA RQ.
  - SECTION 313: Not reportable
CALIFORNIA PROPOSITION 65: The product and its hazardous components are not on the list.

16. OTHER INFORMATION

NFPA RATINGS (Sealed product rating):
Health: 1  Flammability: 1 Instability: 2

REVISION HISTORY
Initial issue: 3/22/2007
Rev. 8/7/2014

PREPARED BY: PSEMC Environmental, Health & Safety Dept.
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