

# Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910. 1200. Standard must be consulted for specific requirements

## MODEL 3431 37/40mm CS Powder Barricade Projectile

### QUICK IDENTIFIER

Common Name: (used on label and list)

### SECTION 1

|  |                                 |                         |              |
|--|---------------------------------|-------------------------|--------------|
| Manufacturer's Name  | Combined Tactical Systems, Inc. |                         |              |
| Address  | 388 Kinsman Road                | Emergency Telephone No. | 800-424-9300 |
| City, State and ZIP  | Jamestown, PA 16134             | Other Information Calls | 724-932-2177 |
| Signature of Person Responsible for Preparation (Optional) | Date Prepared                   |                         | 02/28/01     |

### SECTION 2 - HAZARDOUS INGREDIENTS / IDENTITY

| Hazardous Component(s)<br>(chemical & common name(s)) | OSHA<br>PEL          | ACGIH<br>TLV         | Other Exposure<br>Limits         | %<br>(Optional) | CAS No.    |
|---|----------------------|----------------------|----------------------------------|-----------------|------------|
| <b>Center Fire Primer</b>                             |                      |                      |                                  |                 |            |
| Lead Styphnate  | .05mg/m <sup>3</sup> | .15mg/m <sup>3</sup> |                                  |                 | 15245-44-0 |
| Barium Nitrate  | .5mg/m <sup>3</sup>  | .5mg/m <sup>3</sup>  |                                  |                 | 10022-31-8 |
| Antimony Sulfide                                      | .5mg/m <sup>3</sup>  | .5mg/m <sup>3</sup>  |                                  |                 | 1345-04-6  |
| <b>RED DOT® smokeless powder</b>                      |                      |                      |                                  |                 |            |
| Nitroglycerin   |                      | .46mg/m <sup>3</sup> | .1mg/m <sup>3</sup><br>OSHA STEL | 1.2gm           | 55-63-0    |
| Diphenylamine   |                      | 10mg/m <sup>3</sup>  |                                  |                 | 122-39-4   |
| <b>Dispersion Mixture</b>                             |                      |                      |                                  |                 |            |
| Magnesium Oxide                                       | 5mg/m <sup>3</sup>   | 5mg/m <sup>3</sup>   |                                  | 6.5gm           | 1309-48-4  |
| Silane, dimethyldichloro                              | 20mppcf              | 10mg/m <sup>3</sup>  |                                  |                 | 68611-44-9 |
| o-Chlorobenzalmalononitrile                           |                      | .4mg/m <sup>3</sup>  |                                  |                 | 2698-41-1  |

### SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

|                          |  |  |                         |                           |    |
|--------------------------|--|--|-------------------------|---------------------------|----|
| Boiling Point            | NA   | Specific Gravity<br>H <sub>2</sub> O=1 | NA                      | Vapor Pressure<br>(mm Hg) | NA |
| Vapor Density<br>(Air=1) | NA   | Solubility in<br>Water                 | Not soluble in<br>water | Reactivity in<br>Water    | NA |
| Appearance &<br>Odor     | 37mm aluminum cartridge silver in color, no odor |  |                         | Melting Point             | NA |

### SECTION 4 - FIRE & EXPLOSION DATA

|                                  |    |   |  |  |              |    |              |    |
|----------------------------------|----|---|--|--|--------------|----|--------------|----|
| Flash Point                      | NA | Method Used   | NA   | Flammable Limits<br>in Air % by Volume | LEL<br>Lower | NA | UEL<br>Upper | NA |
| Auto-Ignition<br>Temperature     | NA | Extinguisher<br>Media   | Water spray, Apply by mechanical means only. |  |              |    |              |    |
| Special Fire Fighting Procedures |    | Fight all fires from a remote and explosion resistant site. Evacuate all non-essential personnel. |  |  |              |    |              |    |
| Unusual Fire & Explosion Hazards |    | Use water to cool containers exposed to fire.<br>Net Explosive Weight (NEW) 1.2gm (approx)        |  |  |              |    |              |    |

**SECTION 5 - PHYSICAL HAZARDS (REACTIVITY DATA)**

|           |          |                                     |                     |                                  |
|-----------|----------|-------------------------------------|---------------------|----------------------------------|
| Stability | Unstable | <input type="checkbox"/>            | Conditions to Avoid | Heat, flames, mechanical impact, |
|           | Stable   | <input checked="" type="checkbox"/> |                     |                                  |

|                                      |   |
|--------------------------------------|---|
| Incompatibility (Materials to Avoid) | Acids, caustics and strong oxidizing agents |
|--------------------------------------|---|

|                                  |  |
|----------------------------------|--|
| Hazardous Decomposition Products | Burning may produce Nitrogen oxide carbon monoxide |
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|                          |                |                                     |                     |     |
|--------------------------|----------------|-------------------------------------|---------------------|-----|
| Hazardous Polymerization | May Occur      | <input type="checkbox"/>            | Conditions to Avoid | N/A |
|                          | Will Not Occur | <input checked="" type="checkbox"/> |                     |     |

**SECTION 6 - HEALTH HAZARDS**

|          |                            |            |                            |
|----------|----------------------------|------------|----------------------------|
| 1. Acute | None under normal handling | 2. Chronic | None under normal handling |
|----------|----------------------------|------------|----------------------------|

|                                |   |
|--------------------------------|---|
| Signs and Symptoms of Exposure | Tearing of eyes, irritation of respiratory tract and mucous membranes |
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|   |                            |
|---|----------------------------|
| Medical Conditions Generally Aggravated by Exposure | Respiratory tract – Asthma |
|---|----------------------------|

|  |                             |  |                     |  |      |  |
|--|-----------------------------|--|---------------------|--|------|--|
| Listed as Carcinogen or Potential Carcinogen | National Toxicology Program | Yes <input type="checkbox"/>           | I.A.R.C. Monographs | Yes <input type="checkbox"/>           | OSHA | Yes <input type="checkbox"/>           |
|  |                             | No <input checked="" type="checkbox"/> |                     | No <input checked="" type="checkbox"/> |      | No <input checked="" type="checkbox"/> |

|                                    |   |
|------------------------------------|---|
| Emergency and First Aid Procedures | If any medical problem arises from the use of this product seek medical attention from qualified medical persons. |
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|                        |               |  |
|------------------------|---------------|--|
| <b>ROUTES OF ENTRY</b> | 1. Inhalation | Fresh Air, Oxygen if needed                    |
|                        | 2. Eyes       | Flush with copious amounts of water, fresh air |
|                        | 3. Skin       | Wash with copious amounts of water             |
|                        | 4. Ingestion  | Contact Physician                              |

**SECTION 7 - SPECIAL PRECAUTIONS & SPILL / LEAK PROCEDURES**

|                                     |   |
|-------------------------------------|---|
| Precautions in Handling and Storage | Keep away from heat, flames or strong oxidizers |
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|                   |   |
|-------------------|---|
| Other precautions | Handle as DOD, UN and DOT explosive device per Federal, State and Local laws. |
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|   |  |
|---|--|
| Steps to be Taken in Case Material is released or Spilled | Undamaged units may be picked up and returned to shipping container. Wear suitable protective clothing |
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|  |  |
|--|--|
| Waste Disposal Method (Consult Federal, State and local Regulations) | By persons qualified to dispose of explosives at an approved site under approved procedures. |
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**SECTION 8 - SPECIAL PROTECTION INFORMATION / CONTROL MEASURES**

|                                       |   |
|---------------------------------------|---|
| Respiratory Protection (Specify Type) | Full face respirator with organic cartridge, or Self Contained Breathing Apparatus (SCBA) |
|---------------------------------------|---|

|             |     |               |     |                      |     |         |    |       |    |
|-------------|-----|---------------|-----|----------------------|-----|---------|----|-------|----|
| Ventilation | Yes | Local Exhaust | Yes | Mechanical (General) | Yes | Special | No | Other | No |
|-------------|-----|---------------|-----|----------------------|-----|---------|----|-------|----|

|                   |     |                |     |  |                                      |
|-------------------|-----|----------------|-----|--|--------------------------------------|
| Protective Gloves | Yes | Eye Protection | Yes | Other Protective Clothing or Equipment | As necessary to prevent skin contact |
|-------------------|-----|----------------|-----|--|--------------------------------------|

|                           |                                |
|---------------------------|--------------------------------|
| Work / Hygienic Practices | Wash thoroughly after handling |
|---------------------------|--------------------------------|

**IMPORTANT** - Do not leave any blank spaces. If required information is unavailable, unknown or does not apply, so indicate.