

# Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations


Printing date: March 06, 2019

Revision: March 06, 2019

## 1 Identification

- **Product identifier**
- **Trade name:** Byrna HD Jingle Balls
- **Other means of identification:** OC Projectiles
- **Recommended use and restriction on use**
- **Recommended use:** Self defense projectile
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
Security Devices International, Inc. d/b/a Byrna  
107 Audubon Rd. Building 2, Suite 201  
Wakefield, MA 01880  
(260)804-9164
- **Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924 (North America)  
+1 (813)248-0585 (International)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Eye Irrit. 2B H320 Causes eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
Carc. 2 H351 Suspected of causing cancer. Route of exposure: Inhalation.  
STOT SE 3 H335 May cause respiratory irritation.
- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**  
  
 GHS07 GHS08
- **Signal word:** Warning
- **Hazard statements:**  
H320 Causes eye irritation.  
H317 May cause an allergic skin reaction.  
H351 Suspected of causing cancer. Route of exposure: Inhalation.  
H335 May cause respiratory irritation.
- **Precautionary statements:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing dust.  
P264 Wash thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing must not be allowed out of the workplace.

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|                |  |
|----------------|--|
| P280           | Wear protective gloves/protective clothing/eye protection.   |
| P302+P352      | If on skin: Wash with plenty of soap and water.  |
| P304+P340      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.   |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313      | IF exposed or concerned: Get medical advice/attention.   |
| P312           | Call a poison center/doctor if you feel unwell.  |
| P333+P313      | If skin irritation or rash occurs: Get medical advice/attention.   |
| P337+P313      | If eye irritation persists: Get medical advice/attention.  |
| P363           | Wash contaminated clothing before reuse.   |
| P403+P233      | Store in a well-ventilated place. Keep container tightly closed.   |
| P405           | Store locked up.   |
| P501           | Dispose of contents/container in accordance with local/regional/national/international regulations.                              |

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

## 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

|            |   |        |
|------------|---|--------|
| 21645-51-2 | aluminium hydroxide   | 60-80% |
| 9005-25-8  | Starch<br>Combustible Dust  | 10-30% |
| 14807-96-6 | Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> )                                 | <10%   |
| 8023-77-6  | Oleoresin Capsicum<br>⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335   | <5%    |
| 1333-86-4  | Carbon black<br>⚠ Carc. 2, H351   | <5%    |
| 2444-46-4  | N-vanillylnonanamide<br>⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335 | <1%    |

· **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.  
For the wording of the listed Hazard Statements, refer to section 16.

## 4 First-aid measures

· **Description of first aid measures**

· **General information:**

Information is only applicable to product contents, and not to product as normally supplied. This information is applicable to damaged, leaking, or spilled product as contact with contents is possible under these conditions.

· **After inhalation:**

Supply fresh air; consult doctor in case of complaints.  
Provide oxygen treatment if affected person has difficulty breathing.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

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If skin irritation or rash occurs: Get medical advice/attention.

· **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

May cause respiratory irritation.

Coughing

Breathing difficulty

Causes eye irritation.

Allergic reactions

· **Danger:** Suspected of causing cancer. Route of exposure: Inhalation.

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

Treat symptomatically.

Contains N-vanillylnonanamide. May produce an allergic reaction.

## 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

Carbon dioxide

Foam

Water spray

· **For safety reasons unsuitable extinguishing agents:** None.

· **Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information:**

In case of fire involving large quantities, evacuate area and fight fire from the upwind side.

## 6 Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Avoid formation of dust.

Avoid breathing dust.

· **Environmental precautions** No special measures required.

· **Methods and material for containment and cleaning up**

Sweep up and place into an appropriate container.

Send for recovery or disposal in suitable receptacles.

· **Reference to other sections**

See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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## 7 Handling and storage

### · Handling

#### · Precautions for safe handling:

Open and handle receptacle with care.  
Avoid breathing dust.  
Keep out of reach of children.

#### · Conditions for safe storage, including any incompatibilities

#### · Requirements to be met by storerooms and receptacles:

Store in cool, dry conditions in well sealed receptacles.

#### · Information about storage in one common storage facility: Store away from foodstuffs.

#### · Specific end use(s) No relevant information available.

## 8 Exposure controls/personal protection

### · Control parameters

#### · Components with limit values that require monitoring at the workplace:

#### 21645-51-2 aluminium hydroxide

|             |  |
|-------------|--|
| REL (USA)   | Long-term value: 2 mg/m <sup>3</sup><br>as Al                          |
| TLV (USA)   | Long-term value: 1* mg/m <sup>3</sup><br>as Al;*as respirable fraction |
| EL (Canada) | Long-term value: 10 mg/m <sup>3</sup>                                  |

#### 9005-25-8 Starch

|               |   |
|---------------|---|
| PEL (USA)     | Long-term value: 15* 5** mg/m <sup>3</sup><br>*total dust **respirable fraction |
| REL (USA)     | Long-term value: 10* 5** mg/m <sup>3</sup><br>*total dust **respirable fraction |
| TLV (USA)     | Long-term value: 10 mg/m <sup>3</sup>   |
| EL (Canada)   | Long-term value: 10* 3** mg/m <sup>3</sup><br>*total dust;**respirable fraction |
| EV (Canada)   | Long-term value: 10 mg/m <sup>3</sup><br>total dust                             |
| LMPE (Mexico) | Long-term value: 10 mg/m <sup>3</sup><br>A4                                     |

#### 14807-96-6 Talc (Mg<sub>3</sub>H<sub>2</sub>(SiO<sub>3</sub>)<sub>4</sub>)

|           |   |
|-----------|---|
| PEL (USA) | Long-term value: 20 mppcf ppm<br>(containing <1% Quartz)                  |
| REL (USA) | Long-term value: 2* mg/m <sup>3</sup><br>*respirable dust; and <1% Quartz |
| TLV (USA) | Long-term value: 2* mg/m <sup>3</sup>                                     |

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|               |  |
|---------------|--|
| EL (Canada)   | *as respirable fraction; E<br>Long-term value: 2 *0.1 f/cc mg/m <sup>3</sup><br>resp. *if contains asbestos : ACGIH A1, IARC 1 |
| EV (Canada)   | Long-term value: 2* mg/m <sup>3</sup> , 2 f/cc ppm<br>*respirable  |
| LMPE (Mexico) | Long-term value: 2* mg/m <sup>3</sup><br>A4, *fracción respirable  |

## 1333-86-4 Carbon black

|               |  |
|---------------|--|
| PEL (USA)     | Long-term value: 3.5 mg/m <sup>3</sup>   |
| REL (USA)     | Long-term value: 3.5* mg/m <sup>3</sup><br>*0.1 in presence of PAHs; See Pocket Guide Apps.A+C |
| TLV (USA)     | Long-term value: 3* mg/m <sup>3</sup><br>*inhalable fraction                                   |
| EL (Canada)   | Long-term value: 3 mg/m <sup>3</sup><br>IARC 2B  |
| EV (Canada)   | Long-term value: 3.5 mg/m <sup>3</sup>   |
| LMPE (Mexico) | Long-term value: 3* mg/m <sup>3</sup><br>A3, *fracción inhalable                               |

### · Exposure controls

#### · General protective and hygienic measures:

- Keep away from foodstuffs, beverages and feed.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.
- Avoid breathing dust.

#### · Engineering controls: Provide adequate ventilation.

#### · Breathing equipment:

- Not required under normal conditions of use.
- Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

#### · Protection of hands:

- Wear protective gloves to handle contents of damaged or leaking units.
- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

#### · Eye protection:



Safety glasses

#### · Body protection: Protective work clothing

#### · Limitation and supervision of exposure into the environment

- No relevant information available.

#### · Risk management measures No relevant information available.

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

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|   |  |
|---|--|
| · <b>Appearance:</b>                              |  |
| <b>Form:</b>                                      | Outer shell containing powder, granular, or solid materials. |
| <b>Color:</b>                                     | Green and Red  |
| · <b>Odor:</b>                                    | Pungent  |
| · <b>Odor threshold:</b>                          | Not determined.  |
| · <b>pH-value:</b>                                | Not applicable.  |
| · <b>Melting point/Melting range:</b>             | Not determined.  |
| · <b>Boiling point/Boiling range:</b>             | Not determined.  |
| · <b>Flash point:</b>                             | Not applicable.  |
| · <b>Flammability (solid, gaseous):</b>           | Product is not flammable.                                    |
| · <b>Auto-ignition temperature:</b>               | Not determined.  |
| · <b>Decomposition temperature:</b>               | Not determined.  |
| · <b>Danger of explosion:</b>                     | Heating may cause an explosion.                              |
| · <b>Explosion limits</b>                         |  |
| <b>Lower:</b>                                     | Not determined.  |
| <b>Upper:</b>                                     | Not determined.  |
| · <b>Oxidizing properties:</b>                    | Non-oxidizing.   |
| · <b>Vapor pressure:</b>                          | Not applicable.  |
| · <b>Density:</b>                                 |  |
| <b>Relative density:</b>                          | Not determined.  |
| <b>Vapor density:</b>                             | Not applicable.  |
| <b>Evaporation rate:</b>                          | Not applicable.  |
| · <b>Solubility in / Miscibility with Water:</b>  | Insoluble.   |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.  |
| · <b>Viscosity</b>                                |  |
| <b>Dynamic:</b>                                   | Not applicable.  |
| <b>Kinematic:</b>                                 | Not applicable.  |
| · <b>Other information</b>                        | No relevant information available.                           |

## 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** Reacts with strong acids and alkali.
- **Conditions to avoid**  
Excessive heat.  
Prevent formation of dust.
- **Incompatible materials** Oxidizers, strong bases, strong acids

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· **Hazardous decomposition products**

Under fire conditions only:  
Carbon monoxide and carbon dioxide

## 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

**8023-77-6 Oleoresin Capsicum**

|        |      |                     |
|--------|------|---------------------|
| Oral   | LD50 | 3000 mg/kg (rat)    |
| Dermal | LD50 | >2500 mg/kg (mouse) |

**1333-86-4 Carbon black**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 10000 mg/kg (rat) |
|------|------|-------------------|

· **Primary irritant effect:**

· **On the skin:** Based on available data, the classification criteria are not met.

· **On the eye:** Causes eye irritation.

· **Sensitization:** Contains N-vanillylnonanamide. May produce an allergic reaction.

· **IARC (International Agency for Research on Cancer):**

|           |              |    |
|-----------|--------------|----|
| 1333-86-4 | Carbon black | 2B |
|-----------|--------------|----|

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

· **Probable route(s) of exposure:**

Ingestion.  
Inhalation.  
Eye contact.  
Skin contact.

· **Repeated dose toxicity:** Long term inhalation of product dust may be harmful.

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:** Suspected of causing cancer. Route of exposure: Inhalation.

· **Reproductive toxicity:** Based on available data, the classification criteria are not met.

· **STOT-single exposure:** May cause respiratory irritation.

· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

## 12 Ecological information

· **Toxicity**

· **Aquatic toxicity** No relevant information available.

· **Persistence and degradability** No relevant information available.

· **Bioaccumulative potential:** No relevant information available.

· **Mobility in soil:** No relevant information available.

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- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· DOT, ADR/RID/ADN, IMDG</li> <li>· IATA</li> </ul>                   | <p>Not regulated.<br/>UN3335</p>   |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· DOT, ADR/RID/ADN, IMDG</li> <li>· IATA</li> </ul>     | <p>Not regulated.<br/>Aviation regulated solid, n.o.s. (oleoresin capsaicin)</p> |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· DOT, ADR/RID/ADN, IMDG</li> <li>· Class</li> </ul> | <p>Not regulated.</p>  |
| <ul style="list-style-type: none"> <li>· IATA</li> </ul>   |  |
|   |  |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>   | <p>9<br/>9</p>   |
| <ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· DOT, ADR/RID/ADN, IMDG</li> <li>· IATA</li> </ul>               | <p>Not regulated.<br/>III</p>  |
| <ul style="list-style-type: none"> <li>· <b>Environmental hazards</b></li> <li>· <b>Marine pollutant:</b></li> </ul>                     | <p>No</p>  |
| <ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> </ul>  | <p>Not applicable.</p>   |
| <ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>       | <p>Not applicable.</p>   |

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## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

|            |   |
|------------|---|
| 14807-96-6 | Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> ) |
| 1333-86-4  | Carbon black  |

· **Chemicals known to cause developmental toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**

|           |              |    |
|-----------|--------------|----|
| 1333-86-4 | Carbon black | 2B |
|-----------|--------------|----|

· **Canadian Domestic Substances List (DSL) (Substances not listed.):**

All ingredients listed on DSL or NDSL.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxic

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vPvB: very Persistent and very Bioaccumulative  
OSHA: Occupational Safety & Health Administration  
Acute Tox. 4: Acute toxicity – Category 4  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B  
Skin Sens. 1: Skin sensitisation – Category 1  
Carc. 2: Carcinogenicity – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

**Sources**

Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))  
Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sor-internet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sor-internet/registry/substreg/home/overview/home.do))  
Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org))  
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6  
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.  
Safety Data Sheets, Individual Manufacturers

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