# GHS - Safety Data Sheet
## Burst Wire Pull® Smokes

## Section 1: IDENTIFICATION

**Product Identifier**

| | |
|---|---|
| GHS Product Identifier: | Burst Wire Pull Smokes (Various Colours) |
| Other Means of Identification: | BWP40 Smokes |
| Product Codes: | White = BWP01W; Yellow = BWP02Y; Blue = BWP03B; Green = BWP04G, Red = BWP05R; Purple = BWP06P; Orange = BWP07O. |

**Recommended Use and Restrictions**

| | |
|---|---|
| Recommended Use: | Paintball and Airsoft Games, Training Aid, Signalling Smoke, Screening Smoke, Film, Photography, Skydiving & Parachuting. |
| Restrictions: | Not to be used in public places or in sports stadiums without proper authorisation. |

**Safety Data Sheet Supplier Details**

| | |
|---|---|
| Company: | 3rd Light Limited |
| Address: | Unit 3 Lodge Farm, Lower Padworth, Reading, RG7 4HY, UK. |
| Telephone Number: | + 44 (0)1189 714470 |
| E-mail: | john@enolagaye.com |

**Emergency Telephone Number:** +44 (0)1189 714470

## Section 2: HAZARD IDENTIFICATION

**Classification of Substance**

European Regulation (EC) No 1272/2008 Explosive, Division 1.4

**Label Elements**

European Regulation (EC) No 1272/2008

Hazard Pictogram

Signal Word

**Warning**

**Hazard Statements**

| | | |
|---|---|---|
| | H204 | Fire or projection hazard |
| | H242 | Heating may cause fire |

**Precautionary Statements**

| | | |
|---|---|---|
| General | P102 | Keep out of reach of children |
| | P103 | Read label before use. |
| Prevention | P210 | Keep away from heat/sparks/open flames/hot surfaces – No Smoking. |
| | P234 | Keep in original container |
| | P250 | Do not subject to grinding/shock/impact/friction. |
| | P260 | Avoid breathing dust/fumes/vapours. |
| | P271 | Use only outdoors or in a well-ventilated area. |
| | P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| Response | P314 | Get medical advice/attention if you feel unwell. |
| | P373 | DO NOT fight fire when fire reaches explosives. |
| | P374 | Fight fire with normal precautions from a reasonable distance. |
| | P371+P380+P375 | In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. |
| | P305+P351 | IF IN EYES: Rinse cautiously with water for several minutes remove contact lenses if present and easy to do. Continue rinsing. |
| | P342+ P340 | If experiencing respiratory symptoms. Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| Storage | P402 | Store in a dry place |
| | P404 | Store in a closed container |
| | P411+P235 | Store at temperatures not exceeding 70°C/158°F. Keep Cool. |

**Additional Information**

Exposure to the articles themselves does not pose any health hazards. The smoke and gasses emitted during functioning are not know to be toxic, but may cause respiratory irritation and breathing difficulty if inhaled in large quantities. Thermal burns are also possible if the article is used improperly.

ALWAYS read the product label and obey the given instructions.

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| Chemical Name | CAS No. | EC No. | Hazard Pictogram(s) | Signal Word | Hazard Number(s) |
|---|---|---|---|---|---|
| **Potassium Nitrate** | 7757-79-1 | 231-818-8 |  | Warning | H272 |
| **#Potassium Chlorate** | 3811-04-9 | 223-289-7 |  | Danger | H271, H302, H332, H411, H401 |
| **#Sulphur** | 7704-34-9 | 231-722-6 |  | Warning | H315 |
| **Starch** | 9005-25-8 | 232-679-6 | | **† Not Hazardous** | |
| **Sodium Carbonate** | 497-19-8 | 207-838-8 |  | Warning | H319 |
| **Calcium Stearate** | 1592-23-0 | 216-472-8 | | **† Not Hazardous** | |
| **Charcoal** | 7440-44-0 | 231-153-3 | | **† Not Hazardous** | |
| ***+Nitrocellulose** | 9004-70-0 | N/A |  | Danger | H225, H319 H336 |
| **Thiourea** | 62-56-6 | 200-543-5 |  | Warning | H302, H351, H361d, H411 |
| **Guanidine Nitrate** | 506-93-4 | 208-060-1 |  | Warning | H272, H302, H315 H319, H335 |
| **+Antimony Trisulphide** | 1345-04-6 | 215-713-4 |  | Warning | H302, H332 H411 |
| **+Lead Thiocyanate** | 592-87-0 | 209-774-6 |  | Danger | H302, H312, H332, H360, H410 |
| **+Silicon Carbide** | 409-21-2 | 206-991-8 | | **† Not Hazardous** | |
| **2-Methylanthraquinone** | 84-54-8 | 201-539-6 | | **† Not Hazardous** | |
| **1,4-Dihydroxyanthraquinone** | 81-64-1 | 201-368-7 |  | Warning | H410 |
| **Quinoline Yellow** | 8003-22-3 | 232-318-2 |  | Warning | H315, H319 H335 |
| **Solvent Green 3** | 128-80-3 | 204-909-5 |  | Warning | H315, H319 H335 |
| **1-(Methylamino)anthraquinone** | 82-38-2 | 201-417-2 |  | Warning | H315, H319 H335 |
| **Solvent Violet 13** | 81-48-1 | 201-353-5 | | **† Not Hazardous** | |
| **Disperse Blue 14** | 2475-44-7 | 219-602-1 |  | Warning | H315, H319 H335 |

***** Nitrocellulose - Single Base Powder 12.2-12.4% Nitrogen
**#** Chemicals never mixed together in the same composition.
**+** Ignition systems only - quantity is less than 65 milligrams.
**†** This substance is not classified as a hazardous substance or mixture according to Regulation (EC) No. 1272/2008 or as dangerous according to Directive 67/548/EEC

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## Section 4: FIRST AID MEASURES

**Description of first aid measures:**
The advice given below is for the time immediately after exposure and prior to medical advice.

| | |
|---|---|
| **Inhalation:** | Excessive inhalation of the smoke produced may cause respiratory irritation and difficulty breathing. Remove victim to fresh air, loosen clothing around airway, keep warm and rest. Seek medical advice/attention if symptoms persist. |
| **Burns** | Burns may occur if product is not used correctly. Place burnt area under clean cold running water for at least 10 minutes. Keep the affected area clean. For serious burns seek medical attention. |
| **Ingestion** | If the powdered contents within a device are swallowed, immediately seek medical attention and show this document or product label. Ensure victim is comfortable. Do not induce vomiting and only give water if directed to do so by medical personnel. |
| **Eye Contact:** | If the powdered contents within a device come into contact with eyes, remove any contact lenses and flush eyes with copious amounts of clean water or eye wash with eyelids open. Seek medical advice. |
| **Skin Contact:** | If the powdered contents within a device come into contact with skin, remove any contaminated clothing and wash exposed area with soap and water. |

**Most important symptoms and effects, both acute and delayed:**
Once functioning the device can cause burns if used incorrectly. Excessive inhalation of smoke may cause breathing difficulties. Persons with existing complaints such as asthma and chest infections and other conditions which affect breathing, maybe adversely affected by over exposure to the smoke produced by these devices.

**Indication of the immediate medical attention and special treatment needed**
None other than that described previously.

## Section 5: FIRE-FIGHTING MEASURES

**Extinguishing media**
Suitable Extinguishing Media – Water is the most suitable however, foam or dry chemical may also be used.
Unsuitable Extinguishing Media – None are known

**Special hazards arising**
Explosion risk in the event of fire. Do not fight fire if fire has reached explosives.

**Advice for Fire Fighters**
- For fires involving bulk quantities of product, Minimum Safety Evacuation Distance is **100 metres**.
- If safe to do so, use **WATER** as a fire fighting media from a distance of at least 15 metres
- Apply water to the surrounding area to prevent the spread of fire, cool nearby hazardous storage areas.
- Toxic Fumes e.g. Carbon Monoxide and oxides of Nitrogen may be produced in a fire. Use self-contained breathing apparatus for fires in enclosed areas.

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## Section 6: ACCIDENTAL RELEASE MEASURES

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

| | Release of Articles | Release of Explosive Content |
|---|---|---|
| **Personal Precautions** | - The following Personal Protective Equipment should be worn: Safety Spectacles, Gloves.<br>- Avoid dropping cartons of devices or the devices themselves.<br>- Spillage of devices should not release any hazardous material or cause ignition. | - The following Personal Protective Equipment should be worn: Safety Spectacles, Dust mask and Gloves.<br>- Clear the area and immediate vicinity of persons<br>- No smoking, open flames, sparks, battery powered devices or other sources of heat in the vicinity of spill.<br>- Avoid all sources of friction and impact stimuli. |
| **Environmental Precautions** | - Isolate spill area. | - Isolate the spill area.<br>- Keep spill area well ventilated |
| **Methods and Material for containment and cleaning up** | - Warn all persons in vicinity of spill area.<br>- Pick up spilt devices. | - Warn all persons of explosion hazard.<br>- Sweep up collect loose composition and debris using non sparking tools, place waste in a sealed bag or cardboard box, clearly label and store for disposal.<br>- Wash the spill area with copious amounts of water. |
| **Additional Information** | - Devices should be fully checked for damage prior to re-packing for future use.<br>- Damaged devices should be packed, clearly marked and stored ready for disposal. | - Do not pick up loose powder using a powered mechanical device e.g. vacuum cleaner. |

## Section 7: HANDLING & STORAGE

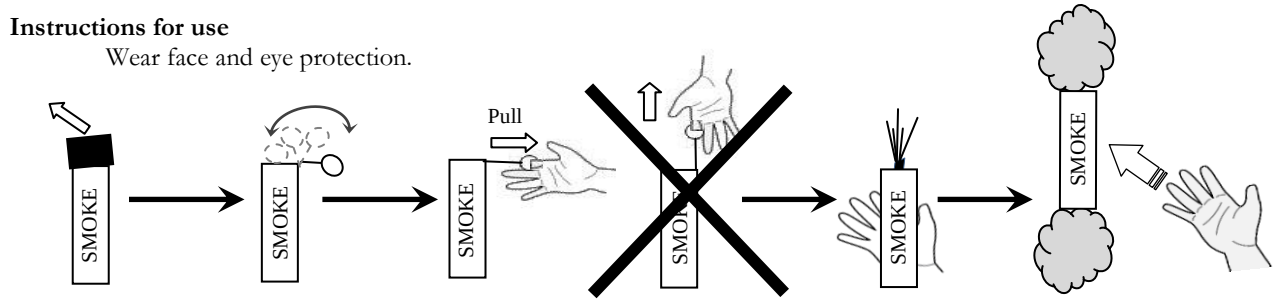
**Precautions for safe handling**
Remove all sources of ignition including matches, lighters, sparking equipment, battery operated device - No Smoking.
Wear the personal protective equipment described in section 8. Do not place these devices inside clothes or pockets, for carrying use the manufacturers approved equipment and pouches.

**Conditions for safe storage including any incompatibilities**
**Storage**
These devices are classed as Explosives (Class 1 Dangerous Goods) and hence must be handled and stored in accordance with the explosive regulations of the relevant Competent Authority in the country being stored.

Store these articles in the transport cartons they were supplied in; keep closed when not in use. Store articles in a cool dry place; preferably with less than 70% humidity. Avoid cycling of excessive hot and cold temperatures as this may damage the product.

**Incompatible materials or ignition sources**
Do not expose the articles or transport cartons to shock (dropping), friction (dragging), crushing, open flames, smoking and temperatures exceeding 65 degrees Celsius.

**Instructions for use**
Wear face and eye protection.




Remove Cap | Extend wire/ring | **PULL SIDEWAYS** | **DO NOT** Pull Upwards | Sparks emitted on Ignition | Immediately throw device in required direction noting the safety distances, notes and warnings.

**Safety:**

- For use ONLY by persons of **18** years of age and over.
- For outdoor use only.
- Safety Distance = **0.5 m**
- Keep away from sources of heat, sparks and open flames.

**Warnings:**

- The manufacturer will not accept liability whatsoever where their pyrotechnics are misused or where the product has been tampered with and/or customised.
- Handle with Care, Do Not subject to grinding, shock or friction.
- DO NOT throw at animals
- Device gets HOT do not pick up within 5 minutes after the device has stopped functioning.
- Not to be used for any other purposes than the intended application(s).
- Not to be used in public places including sporting venues without the proper authorisation.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control Parameters**

Below are the recommended exposure limits of some of the possible reaction products of the burning composition which may be produced during the functioning of these devices.

| Reaction Product | TWA* | STEL** |
|---|---|---|
| Carbon Monoxide | 35 mg/m$^3$ | 232 mg/m$^3$ |
| Carbon Dioxide | 9150 | 27400 |
| Nitric Oxide | 30 | - |
| Nitrogen Dioxide | 5.6 | 9.4 |
| Potassium Hydroxide | - | 2 |
| Potassium Chloride | No Available Data | |

* 8 hour Time weighted average

** Short Term Exposure Limit (15 minutes)

Approximately 10% of the dye is destroyed during the burning process producing decomposition products; these products are not known. Over 45% of the emitted smoke will contain coloured dye; there is no exposure data for these dyes. The dyes may stain when in close contact (within approximately 3 metres) of a surface or clothing.

**Engineering measures/controls**

For use outdoors or in well ventilated areas. Always ensure good ventilation before use.

**Personnel Protective Equipment**

Protective gloves made from thick cotton, leather or other similar non-flammable or melting material

Impact resistant safety spectacles/face shield or similar eye protection e.g. Paintball and airsoft approved goggles.

Prolonged exposure to the smoke emissions is not foreseen under normal operating conditions. Any person likely to experience prolonged or concentrated exposure to the smoke (non-ventilated areas) or are dealing with composition spillages, respiratory protection in the form of a dust mask be should be worn.

**General industrial hygiene**

NO SMOKING

DO NOT eat or drink whilst handling

Wash hands after use or after handling products.

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## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**Physical Appearance**
These devices consist of a cardboard tube 38mm in diameter x 120mm containing consolidated pyrotechnic composition. The ignition wire protrudes through the tube at one end.

On ignition the device produces coloured smoke from both ends of the device for a duration of approximately 25 seconds. The temperature of the device casing reaches a temperature of approximately 80°C.

**Chemical Properties (listed properties where data is available)**
Flammability (device): Highly Flammable
Solubility (device): Insoluble

## Section 10: STABILITY AND REACTIVITY

| | |
|---|---|
| **Reactivity** | Reaction occurs on ignition. Stable unless ignited |
| **Stability** | Stable under normal storage, transport and handling conditions as recommended above. |
| **Possibility of hazardous reactions** | Stable under normal storage, transport and handling conditions as recommended above. |
| **Conditions to avoid** | Avoid contact with ignition sources including high temperature radiant heat, sparks, electrostatic, shock, impact, friction.<br>Avoid getting wet. |
| **Chemical incompatibility** | Organic solvents, strong acids and Alkalis |
| **Material incompatibility** | Do not use or store near flammable liquids or solids. |
| **Hazardous decomposition products** | Carbon Monoxide, Carbon Dioxide, Nitric Oxide, Nitrogen Dioxide<br>Potassium Hydroxide, Potassium Chloride |

## Section 12: TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

| | |
|---|---|
| **Routes of entry** | Under normal circumstances and proper use, there will be no contact with the chemicals contained within the device.<br>Inhalation of the smoke produced during functioning of the device. |

Under normal conditions the smoke composition burns, sublimating the dye which condenses as it cools in the atmosphere. In addition to dye, carbon dioxide and various nitrogen oxides together with water vapour and various decomposition products of the dyes are produced in the smoke. The exact nature and quantity of the smoke emissions is dependant on the atmospheric and environmental conditions at the time of release and thus ill-defined. The data Given below is for the pure smoke dye in concentration as there is no data available for the smoke itself.

| | |
|---|---|
| **Chronic effects (Smoke)** | **Inhalation**: May be harmful if inhaled. Causes respiratory tract irritation.<br>**Ingestion**: May be harmful if swallowed.<br>**Skin**: May be harmful if absorbed through skin. Causes skin irritation.<br>**Eyes**: Causes serious eye irritation. |
| **Acute effects (Smoke)** | No data available |
| **Carcinogenicity (Dye)** | No component of the dye present at levels greater than or equal to 0.1% is identified probable, possible or confirmed human carcinogen by IARC |

**Other information**
No adverse health effects are expected if the product is stored, handled and used according to this Safety Data Sheet. If these products are mishandled or used irresponsibly and adverse health effects are experienced, then the First Aid measures outlined in section 4 should be followed.

## Section 12: ECOLOGICAL INFORMATION

No detrimental effects on the environment are foreseen under normal use.

In the event of the smoke composition being released from the device, the bulk material can be collected and contained; any remaining composition may be cleaned up with water. Whilst contamination of the waterways is unlikely, if it did happen it would be of low level and of short duration.

| | |
|---|---|
| **Toxicity** | No data available |
| **Persistence and degradability** | No data available |
| **Bio accumulative potential** | No data available |
| **Mobility in Soil** No data available | No data available |
| **Results of PBT and vPvB assessment** | No data available |
| **Other adverse affects** | Toxic to aquatic life<br>No data available |

## Section 13: DISPOSAL CONSIDERATIONS

**Device**

Disposal should be by the method that best conforms to local and national regulation plus transport regulations where necessary.

1. Submerge in a bucket of water allowing the water to enter the device, leave submerged for at least 48 hours then dispose of remnants in accordance with local or national regulations.
2. Controlled burn - Place a maximum of 100 devices onto a pre made fire and ignite remotely from a distance of 25 metres. Ensure fire is place in a suitable location, not to ignite or damage surrounding vegetation, trees or buildings.
3. Re-pack the devices into the original supplied transport packaging and return to the supplier noting the transport regulations in section 14.

**Smoke Composition**

Wearing the correct protective equipment, collect and contain the bulk of the composition; dispose of using either method 1 or 2 above.

## Section 14: TRANSPORT INFORMATION

These devices have been authorised and classified by the Competent Authorities of the United Kingdom, United States of America and Canada as:

**United Kingdom**

| | |
|---|---|
| **Proper Shipping Name** | **Signals, Smoke** |
| **UN Number** | 0507 |
| **Hazard Class** | 1.4 |
| **Compatibility Group** | S |
| **Packing Instruction** | 135 |


**United States of America**

| | |
|---|---|
| **Proper Shipping Name** | **Signals, Smoke** |
| **UN Number** | 0507 |
| **Hazard Class** | 1.4 |
| **Compatibility Group** | S |
| **Packing Instruction** | 135 |

## Section 15: REGULATORY INFORMATION

| Regulatory Information | |
|---|---|
| **UK - Competent Authority Document No.** | SVC4325950P |
| **USA - Department of Transport Approval No.** | EX2012090654 & EX2013121240 |
| **USA - ATF Exemption from 27 CFR 555.32.** | 903070:SCS/14-0267/555.32/5403 |
| **Canada – Natural Resources Canada** | XP2050-T47-140911003 |
| **CE Generic Type** | Simulation Device |
| **CE Category** | P1 |
| **Registration Number** | CE 0589-P1-0716 |

## Section 16: OTHER INFORMATION

This data sheet refers to the articles identified in section 1.0 and under normal conditions of use. The manufacturer will not accept liability for injury or damage caused by these articles if they are misused or have been tampered with, changed or altered in any way.

The products identified in Section 1 are manufactured by 3rd Light Limited, Reading, UK.

These products are distributed globally (excluding North America) by 3rd Light Ltd, Reading UK, +44 (0)1189 714470 and distributed throughout North America by 3rd Light LLC, 800 S. Margaret Street #1, Pahrump, Nevada, 89048, USA.