Material Safety Data Sheet

Conforms to OSHH's Hazard Communication Standard 29 CFR 1910.1200

Identification: Wire Pull Smokes, Burst Wire Pull Smokes and EG18 Smokes, classified / approved as **Signal, smokes**, UN0507 1.4S and UN0197, 1.4G

Section I – Contact Details

Manufacturers Name and Address (Head Office):

3rd Light Limited
Unit 3 Lodge Farm
Lower Padworth
Reading
RG7 4HY

Emergency Contact Number: 011 44 1189 714470
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Date Prepared: 15th January 2013

Section II – Hazardous Ingredients/Identity Information

Contains a low hazard pyrotechnic composition which is a solid mixture of fuel(s), oxidiser(s) and effect producing agent(s) that burns when ignited. These devices are classified as **Signals, smoke** UN0507, 1.4S or UN0197, 1.4G by the U.S. Department of Transportation. Under normal storage and handling conditions no chemical composition is exposed. On ignition these devices produce smoke and gasses which may contain various oxides, dioxides, monoxides, chlorides and other gaseous and particulate by products.

Composition contains at least two of the following:
Antimony Sulphide, Azo Dyes, Calcium Carbonate, Charcoal, Lactose, Nitrocellulose, Potassium Chlorate, Potassium Nitrate, Potassium Perchlorate, Pthalocyanine dyes, Starch, Sodium Carbonate, Sulphur and Rhodamine B.

Section III – Physical/Chemical Characteristics

Boiling Point:	N/A	**Specific Gravity (H_2O=1):**	N/A
Vapour Pressure(mm Hg):	N/A	**Melting Point:**	N/A
Vapour Density (Air=1):	N/A	**Evaporation Rate (Butyl Acetate =1):**	N/A
Solubility in Water:	Slight		
Appearance and Odour	Compacted composition contained within the device and thus no odour is noticed.		

Section IV – Fire and Explosion Hazard Data

Flash Point: N/A **Flammable Limits:** N/A **LEL:** N/A **UEL:** N/A

Extinguishing Media: For small quantities flood with a copious amount of water.

Special Fire Fighting Procedures: Use water only, do not try and suffocate the fire. For fires involving large quantities, allow to burn and prevent the spread of fire.

Unusual Fire and Explosion Hazards: Fire will spread quickly through packages yielding a large volume of smoke.

Section V – Reactivity

Stability: Stable	N/A
Conditions to Avoid:	N/A
Incompatable Materials:	N/A
Hazardous decomposition/By products:	Slight.
Hazardous Polymerisation:	Will not occur.
Conditions to Avoid:	Sparks, Flame, Impact, Friction. Exposure to water will cause deterioration.

Section VI – Health Hazard Data

Health Hazards (Acute and Chronic): Exposure to the devices 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 device is not used properly.

Carcinogenicity:

NTP?	ARC Monographs?	OSHA Regulated?
No	No	No

Signs and Symptoms of Exposure: Thermal burns. Respiratory irritation and breathing difficulty from excessive inhalation of combustion gasses and smoke.

Medical Conditions Generally Aggravated by Exposure: Asthma and/or pre-existing respiratory conditions.

Emergency and First Aid Procedures: Burns – Flush with cold running water for at least 10 minutes.
Eyes – Wash with copious amounts of clean water.
Inhalation – Move to fresh air
In all cases if problems persist or worsen consult a physician and show them this MSDS.

Section VII – Precautions for Safe Handling and Use

Accidental release of Case Material : No smoking or open flames in the vicinity of broken or spilled items and chemicals. Carefully pickup and place spilled items into a cardboard box. If any chemical composition has been spilt, wear gloves and dust musk and sweep up spilled chemicals using a brush. Dust may be washed into the waste water system. Wash all equipment used.

Waste Disposal Method: Submerge in a large bucket of water for at least 48 hours then dispose of in accordance with Local, State and Federal regulations.

Precautions During Handling and Storage: Store devices in the transport cartons; keeping closed when not in use. Store devices in a cool dry place away from excessive sources of heat, preferably with less than 70% humidity. Avoid cycling of excessive hot and cold temperatures as this may damage the product. Do not expose the devices or transport cartons to shock (dropping), friction (dragging), crushing, open flames, smoking and temperatures exceeding 65 degrees Celsius.

Other Precautions: Do not pick up loose powder using a powered mechanical device e.g. vacuum cleaner.

Section VIII – Control Measures

Respiratory Protection (Specify Type): None when handling undamaged devices. A N95 approved respirator/dustmast should be used if sweeping up loose composition.

Ventilation: N/A **Local Exhaust:** N/A
Mechanical (General): N/A **Special:** N/A

Protective Gloves: None required for normal operation. Latex or non-latex protective gloves should be worn when cleaning up and spilled loose composition

Eye Protection: Safety Glasses or protective eye wear.

Other protective Clothing and Equipment: None

Work / Hygienic Practises: No smoking in the vicinity of these devices. Do not leave near food or eat when using these devices. Wash hands thoroughly after handling these devices.

All pyrotechnic devices MUST be handled and stored with caution and in accordance with all local, state and federal laws and regulations