# CITY OF NOVI CITY COUNCIL MARCH 20, 2023



**SUBJECT:** Approval of request for Pyrotechnics Display Permit by Brightmoor Christian Church to be operated by James Herr, on Wednesday, March 29 through Sunday, April 2, 2023 for their daily Easter programs.

#### SUBMITTING DEPARTMENT: City Clerk

#### **BACKGROUND INFORMATION:**

Brightmoor Christian Church would like to enhance their Easter Programs with the addition of a pyrotechnics display once each day between Wednesday, March  $29^{th}$  through Sunday, April  $2^{nd}$ , 2023 .

The pyrotechnics show will be launched from the worship center stage.

The Michigan Fireworks Safety Act requires the applicant to furnish adequate insurance coverage with the Fireworks Permit Application. The Certificate of Liability Insurance is acceptable and provides an endorsement listing the City of Novi as an Additional Insured.

The Novi Fire Department has conducted a site inspection and an additional inspection will occur once the show is complete. Additional Police and Fire Department personnel will be assigned for the duration of the event to assure that all safety measures and processes are adhered to according to the fireworks permit.

**RECOMMENDED ACTION:** Approval of request for Pyrotechnics Display Permit by Brightmoor Christian Church to be operated by James Herr, on Wednesday, March 29 through Sunday, April 2, 2023 for their daily Easter programs.

#### 2023 Permit for Fireworks Other than Consumer or Low Impact

Authority: 2011 PA 256 The LEGISLATIVE BODY OF CITY, VILLAGE OR TOWNSHIP BOARD will not discriminate against any individual or group because of race, sex, re national origin, color, marital status, disability, or political beliefs, If you need assistance with reading, writing, hearing, etc., under the Americans with Act, you may make your needs known to this Legislative Body of City, Village or Township Board.
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This permit is not transferable. Possession of this permit authorizes the herein named person to possess, transport and display fireworks in the amounts, for the purpose of and at the place listed below only through permit expiration date.

TYPE OF PERMIT(S) (Select all applicable boxes)	FOR USE BY LEGISLATIVE BODY OF
☐ Agricultural or Wildlife Fireworks KArticles Pyrotechnic ☐ Display Fireworks	CITY, VILLAGE OR TOWNSHIP BOARD ONLY.
Public Display	PERMIT(S) EXPIRATION DATE (ENTER DATE OF EXPIRATION)
Special Effects Manufactured for Outdoor Pest Control or Agricultural Purposes	
NAME OF PERSON PERMIT ISSUED TO James Herr	AGE (18 YEARS OR OLDER)
ADDRESS OF PERSON PERMIT ISSUED TO	
NAME OF ORGANIZATION, GROUP, FIRM OR CORPORATION Brightmour Christian Church	
40800 W. 13 Mile Road Nov: MI 98377	
NUMBER AND TYPES OF FIREWORKS (Please atlach additional pages if necessary) 4 - Fire Fly Propone Flome Units	
4- Theatrical Flosh	
4- Morter Hits 4- Handheld Torches	
9- Hondheld Torches	
Brightmoor Christian Church, Worship Center Stage	
EXACT LOCATION OF DISPLAY OR USE Brightmoor Christian Church, Worship Center Stage CITY, VILLAGE, TOWNSHIP DATE BOND OR INSURANCE FILED MAYER - 500	23 Tom
BOND OR INSURANCE FILED	AMOUNT
X YES T NO	<b>4</b> 8,000,000
Issued by action of the Legislative Body of a	
City Village Township of	
d city i village i rownship or on the d	ay of
(Signature and Title of Legislative Body Representative)	
*THIS FORM IS VALID UNTIL THE DATE OF EXPIRATION OF PERMIT*	

2023 Applica	ation for Fireworks C	Other Than Consumer or Low Impac	t	FOR USE BY LEGISLATIVE BODY OF CITY, VILLAGE OR TOWNSHIP BOARD ONLY
Authority: 2011 PA 256	or group because of race need assistance with read	Y OF CITY, VILLAGE OR TOWNSHIP BOARD will not discrimina , sex, religion, age, national origin, color, marital status, disability, ding, writing, hearing, etc., under the Americans with Disabilities A slative Body of City, Village or Township Board.	or political beliefs, If you	DATE PERMIT(S) EXPIRE:
TYPE OF PERMIT(S) (Sele	ct all applicable boxes)		······································	
Agricultural or Wildlife Fi	reworks	XArticles Pyrotechnic	🔽 Display F	ireworks
🕅 Public Display		Private Display		
Special Effects Manufact	tured for Outdoor Pest Contr	rol or Agricultural Purposes		
NAME OF APPLICANT James Herr		ADDRESS OF APPLICANT	AGE OF APP	LICANT 18 YEARS OR OLDER NO
NAME OF PERSON OR RESIDENT CORPORATION, LLC, DBA OR OTH James Herr		ADDRESS PERSON OR RESIDENT AGENT REPRESE	NTING CORPORATION, LI	LC, DBA OR OTHER
IF A NON-RESIDENT APPLICANT (I OR MICHIGAN RESIDENT AGENT)	LIST NAME OF MICHIGAN ATTOR	NEY ADDRESS (MICHIGAN ATTORNEY OR MICHIGAN RES AGENT)	SIDENT TELEPHONE	NUMBER
NAME OF PYROTECHNIC OPERAT James Herr	OR	ADDRESS OF PYROTECHNIC OPERATOR	AGE OF PYR OLDER □ YES □	OTECHNIC OPERATOR 18 YEARS OR
NO. YEARS EXPERIENCE	NO DISPLAYS 6	WHERE Various		
NAME OF ASSISTANT		ADDRESS OF ASSISTANT		ISTANT 18 YEARS OR OLDER
NAME OF ASSISTANT		ADDRESS OF ASSISTANT		NO
NAME OF OTHER ASSISTANT		ADDRESS OF OTHER ASSISTANT	AGE OF OTH	IER ASSISTANT 18 YEARS OR OLDER NO
EXACT LOCATION OF PROPOSED Brightmoor Christian Church, Worship				
DATE OF PROPOSED DISPLAY 3/29/23 – 4/2/23		TIME OF PROPOSED DISPLAY 3pm & 7pm		
PROVIDE PROOF OF PROPER LICI All products are stored in a metal flam	ENSING OR PERMITTING BY STAT		, 1124 & 1125 AND OTHER	STATE OK FEDERAL REGULATIONS.
AMOUNT OF BOND OR INSURANCE \$58,000,000	E (TO BE SET BY LOCAL GOVERN	IMENTI NAME OF BONDING CORPORATION OR INSURANCI Brotherhood Mutual	E COMPANY	
ADDRESS OF BONDING CORPORA P.O. Box 2227 Fort Wayne, IN 46801	TION OR INSURANCE COMPANY			
NUMBER OF FIREWORKS		KIND OF FIREWORKS TO BE DISPLA	YED (Please provide additional	pages as needed)
4	Firefly Propane Flame Units			
4	Theatrical Flashes			
4	Mortar Hits			
4	Handheld Theatrical Torches			<i>a</i>
SIGNATURE OF APPLICANT	11/		1	DATE 3/8/23
1	110			_/_/

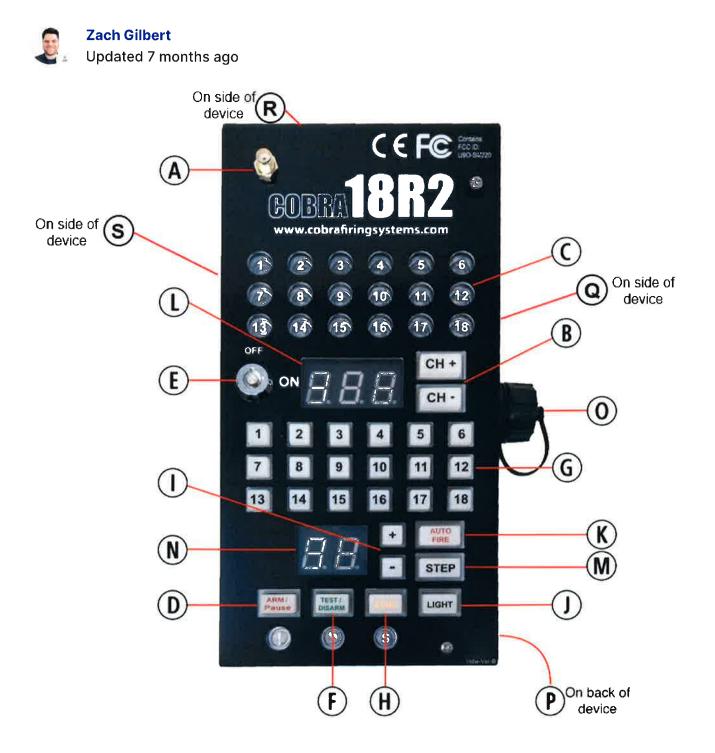
						OP ID: ME
ACORD EVIDENCE OF CO	MN	<b>1</b> EF	<b>RCIAL PROPEI</b>		ANCE	DATE (MM/DD/YYYY) 03/08/2023
THIS EVIDENCE OF COMMERCIAL PROPERTY INSURAN UPON THE ADDITIONAL INTEREST NAMED BELOW. THIS THE COVERAGE AFFORDED BY THE POLICIES BELOW. THE ISSUING INSURER(S), AUTHORIZED REPRESENTATION	EVID THI:	ENCE S EVI	DOES NOT AFFIRMATI	VELY OR NEGATIV	ELY AMEND, TITUTE A CO	NFERS NO RIGHTS
PRODUCER NAME, CONTACT PERSON AND ADDRESS (A/C, No, Ext): 616-956-5300			COMPANY NAME AND AD		NAIC	DNO:
CONTACT PERSON AND ADDRESS (A/C, No, Ext): 010-350-3500 Shilton & Associates, Inc. Dave Shilton			Brotherhood Mutua P O Box 2227	I		
660 Cascade West Parkway, SE Grand Rapids, MI 49546 Jared Nathan Shilton			Fort Wayne, IN 4680	01		
FAX (A/C, No): 616-956-9993 E-MAIL ADDRESS:			IF MULTIP	LE COMPANIES, COMPLE	TE SEPARATE FO	ORM FOR EACH
CODE: SUB CODE:			POLICY TYPE			
AGENCY CUSTOMER ID #: BRIGH-3			Commercial Pack	age		
NAMED INSURED AND ADDRESS Brightmoor Christian Church 40800 W 13 Mile Rd Novi, MI 48377-2327			LOAN NUMBER	EXPIRATION DATE	POLICY NUM 21MRA0437	7802
			09/01/2022	09/01/2023		ONTINUED UNTIL ERMINATED IF CHECKED
ADDITIONAL NAMED INSURED(S)			THIS REPLACES PRIOR E	VIDENCE DATED:		
PROPERTY INFORMATION (ACORD 101 may be attached i	f mo	re spa	ice is required) X BU		SINESS PER	SONAL PROPERTY
LOCATION / DESCRIPTION 40800 W 13 MIIe Rd Novi, MI 48377			Location 101 Church-\$50,406,000 Contents-\$8,000,000			
THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUE ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY		ER DO	CUMENT WITH RESPECT T	O WHICH THIS EVIDE	NCE OF PROP	ERTY INSURANCE MAY
COVERAGE INFORMATION PERILS INSURED	BA	SIC	BROAD X SPEC			
COMMERCIAL PROPERTY COVERAGE AMOUNT OF INSURANCE: \$		_	58,611,000		DED:	2,500
	YES	NO N			DED.	_,
BUSINESS INCOME RENTAL VALUE			If YES, LIMIT:		Actual Loss Su	stained; # of months:
BLANKET COVERAGE	-		If YES, indicate value(s) r	enorted on property idea		
TERRORISM COVERAGE	x		Attach Disclosure Notice		ntilled above, ø	
IS THERE A TERRORISM-SPECIFIC EXCLUSION?	^		Augen Disclosure Notice	020		
IS DOMESTIC TERRORISM EXCLUDED?	-					
LIMITED FUNGUS COVERAGE	-		KYEO LINT			
FUNGUS EXCLUSION (If "YES", specify organization's form used)	-		If YES, LIMIT:		DED:	
REPLACEMENT COST	V					
	X					
			If YES, %			
EQUIPMENT BREAKDOWN (If Applicable)	X		If YES, LIMIT:	58,611,000	DED:	2,500
ORDINANCE OR LAW - Coverage for loss to undamaged portion of bldg	X		If YES, LIMIT:	100,000	DED:	2,500
- Demolition Costs	X		If YES, LIMIT:	350,000	DED:	2,500
- Incr. Cost of Construction	X		If YES, LIMIT:		DED:	2,500
EARTH MOVEMENT (If Applicable)			If YES, LIMIT:		DED:	
FLOOD (If Applicable)			If YES, LIMIT:		DED:	
WIND / HAIL INCL YES NO Subject to Different Provisions:			If YES, LIMIT:		DED:	
NAMED STORM INCL YES NO Subject to Different Provisions: PERMISSION TO WAIVE SUBROGATION IN FAVOR OF MORTGAGE			If YES, LIMIT:		DED:	
HOLDER PRIOR TO LOSS						
CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIO	BE (	CANC	ELLED BEFORE THE	EXPIRATION DATE	THEREOF,	NOTICE WILL BE
ADDITIONAL INTEREST	-					
	S PAY	FF	LENDER SERVICING AGENT	NAME AND ADDRESS		
MORTGAGEE	0171			NAME AND ADDRESS		
IAME AND ADDRESS						
			AUTHORIZED REPRESENTA		~~~	7
				TIVE Jaced	Shil	ton
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	EVIDENCE OF PROPERTY INSURANCE	DATE(MM/DD/YY)
	PROPERTY SCHEDULE	03/08/2023
		PAGE 2
PROPERTY INFORMATIO	N	
LOCATION/DESCRIPTION		
23745 Research Farmington Hills		
Storage Building	Contents-\$45,000	
PROPERTY INFORMATIO	N	
LOCATION/DESCRIPTION		
28265 Beck Rd S		
Wixom, MI 48393		
Location 0301 Storage Unit Con	tents-\$60,000	
PROPERTY INFORMATIC	N	
LOCATION/DESCRIPTION		
PROPERTY INFORMATIO	N	
LOCATION/DESCRIPTION		
PROPERTY INFORMATIO	N	
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LOCATION/DESCRIPTION		
	ATTACH TO EVIDENCE OF PROPERTY APPLICATION	

## **Controller Interface**



A) Antenna Connector	B) CH+, CH- Buttons
Connect the standard omnidirectional antenna, COBRA Booster, COBRA DISH, or a combination of the three.	Press up or down to navigate between channels. Holding the CH+ or CH- button will allow for fast scrolling.
C) Cue LED Indicators (1-18)	D) ARM/Pause Button
	Press to ARM the 18R2 or pause/resume an

Connect to COBRA Control Panel, load automated scripts and firmware updates.	power the 18R2.
<b>(Q) Deadman Port (Optional Upgrade)</b> Connect to the COBRA Deadman Trigger.	<b>(R) Timecode RCA Port (Optional Upgrade)</b> Connect an RCA cable to support SMPTE Timecode control.
(S) Charge Port (Optional Upgrade) Connect a COBRA charger to charge the internal LiPo battery.	

### Interface



Brandon Brown

Updated 7 months ago



A) Antenna Connector	B) CH+, CH- Buttons
Connect the standard omnidirectional antenna, COBRA Booster, COBRA DISH, or a combination of the three.	Press and release to increment (CH+) or decrement (CH-) the channel for the selected bank.
C) SYNC Button	D) TEST Button



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# SAFETY DATA SHEET

16<sup>th</sup> September 2019

#### SECTION 1 - PRODUCT IDENTIFICATION

#### **1.1 Product identifier**

Product Name: SIMULATION EFFECTS (Napalm, Shellburst, Giant Fireball, Goldstar, Mortar Hit, Thunderflash)

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Articles pyrotechnic for technical purposes

#### 1.3 Details of the Supplier of the Safety Data Sheet

Supplier: Le Maitre Ltd Street/P.O. Box: 6 Forval Close Postcode/City: CR4 4NE, Mitcham Country: England Telephone number: +44 (0)20 8646 2222 Email: info@lemaitreltd.com

#### 1.4 Emergency telephone number

**Please contact:** +44 (0)151 951 3317 Health and Safety Executive (HSE) Chemicals Regulation Directorate **Other comments:** Only available during office hours

#### SECTION 2 - HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

H204: Fire or projection hazard

#### 2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 (CLP)

Hazard category: Division 1.4HazardSignal word: WarningHazard statement: H204 Fire or projection hazardPrecautionary Statements Prevention: P210, P234Precautionary Statements Response: P370 + P372 + P380 + P373Precautionary Statements Storage: P401Precautionary Statements Disposal: P501

#### 2.3 Other hazards

There are no chronic effects from handling the product appropriately When used in the correct manner, any fallout does not pose a risk to personal health.



#### SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.1 Substances

Name	CAS No.	EC No.
Aluminium powder	7429-90-5	231-072-3
Charcoal	16291-96-6	240-383-3
Lycopodium powder	8023-70-9	282-002-3
Magnesium powder	7439-54-4	231-104-6
Naphthalene	91-20-3	202-049-5
Potassium Nitrate	7757-79-1	231-818-8
Potassium Perchlorate	7778-47-7	231-912-9
Starch	9005-25-8	232-679
Strontium Oxalate	814-95-9	212-415-6
Sulphur	7704-34-9	231-722-6

List above covers all products within the Simulation effect families

#### SECTION 4 – FIRST AID MEASURES

#### 4.1 Description of first aid measures

General notes: In the case of accident or sickness, seek medical advice immediately.

Following inhalation: Remove casualty to fresh air and keep warm and at rest.

Following skin contact: Wash immediately with soap and water

Following eye contact: Immediately flush with water

Following ingestion: If accidently swallowed, rinse the mouth with plenty of water (only if the person is conscious) and obtain medical attention

Self protection of the first aider: Pay attention to self protection!

#### 4.2 Most important symptoms and effects, both acute and delayed

Irritation to the eyes and irritation to the skin

#### 4.3 Indication of any immediate medical attention and special treatment needed

First aid, decontamination, treatment of symptoms

SECTION 5 – FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

Suitable extinguishing media: If there is a small flame persisting from the effect itself (or from the surrounding area) this can be extinguished with a dry powder or Carbon Dioxide Fire Extinguisher if trained to do so. For larger fires do not attempt to extinguish any fire unless specifically trained to do so. Evacuate area and contact emergency services

Unsuitable extinguishing media: N/A

#### 5.2 Special hazards arising from the substance or mixture

Hazardous combustion products may be produced. Pyrotechnic devices can burn violently and the state of the fire will be dependent on composition, packaging and containment.

#### 5.3 Advice for firefighters

Exercise extreme caution. Special protective equipment for firefighters: wear self-contained breathing apparatus and chemical protective clothing

#### SECTION 6 - ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel: Suitable personal protective equipment. Remove ignition sources.

**6.1.2 For emergency responders:** Remove persons to safety. Isolate hazard area and deny entry. Ventilate closed spaces before entering.

#### 6.2 Environmental precautions

Prevent large spillages from entering surface water or drains.

#### 6.3 Methods and material for containment and cleaning up

Dispose of as special waste in compliance with local and national regulations.

#### 6.4 Reference to other sections

See sections 8 and 13

SECTION 7 – HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Protective measures: Handle with caution. Measures to prevent fire: No smoking and no naked flames. Measures to prevent aerosol and dust generation: Do not tamper with the item. Advice on general occupational hygiene: Do not eat, drink or smoke in work areas. Wash hands after use.

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

**Technical measures and storage conditions:** Store in cool, dry place. **Requirments for storage rooms and vessels:** Always store in original packaging with appropriate marking and labelling. Stores should be adequately secured and identified.

#### 7.3 Specific end use(s)

The identified use for this product is detailed in section 1.2.

#### 8.1

#### SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Control

#### parameters

Workplace exposure limits.

#### 8.2 Exposure controls

- 8.2.1 Appropriate engineering controls: Provide adequate ventilation.
- 8.2.2 Personal protection equipment: Appropriate Safety goggles.
- 8.2.3 Environmental exposure controls: No specific measures.

#### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

#### Appearance: Solid sealed tube

As this is a sealed unit chemical properties are not applicable

#### 9.2 Other information

No additional information relevant to safe use.

SECTION 10 - STABILITY AND REACTIVITY

#### **10.1 Reactivity**

No specific data related to reactivity available.

#### 10.2 Chemical stability

Stable under recommended conditions of storage and use.

#### 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

#### 10.4 Conditions to avoid

Avoid high temperatures, shock, static discharge, vibrations or other physical stresses that might result in a hazardous situation.

#### **10.5 Incompatible materials**

As this is a sealed unit incompatible materials are not applicable.

#### 10.6 Hazardous decomposition products

Decomposition does not occur during normal circumstances of storage, transport and handling. Upon functioning various gases may be emitted including oxides.

#### SECTION 11 - TOXILOGICAL INFORMATION

#### 11.1 Information on toxilogical effects

As this is a sealed unit this only applies to spillages. May cause eye and skin irritation. Inhalation or ingestion may cause discomfort.

#### **SECTION 12 - ECOLOGICAL INFORMATION**

#### 12.1 Toxicity

Not classified as dangerous for the environment/aquatic toxicant

12.2 Persistance and degradability N/A

12.3 Bioaccumulative potential N/A

12.4 Mobility in soil N/A

12.5 Results of PBT and vPvB assessment N/A

#### 12.6 Other adverse effects N/A

#### **SECTION 13 – DISPOSAL CONSIDERATIONS**

#### 13.1 Waste treatment methods

No specific regulations apply to packagings or spent devices.

Unused devices should be returned to the manufacturer, functioned in a safe manner or soaked in a vessel of water for 48 hours. If soaked in water review local and national requirements prior to disposal.

SECTION 14 - TRANSPORT INFORMATION

#### 14.1 UN number

UN0431 or UN0432

#### 14.2 UN proper shipping name

Articles pyrotechnic for technical purposes

#### 14.3 Transport hazard class(es)

1.4G (UN0431) or 1.4S (UN0432)

#### 14.4 Packing group

N/A

14.5 Environmental hazards

None

#### 14.6 Special precautions for user

No smoking or naked flames

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

N/A

#### **SECTION 15 - REGULATORY INFORMATION**

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Explosives Regulations 2014 and all orders of council, HSG 36, Local Authorities and the Health and Safety Executive.

Pyrotechnic Articles European Directive 2013/29/EU

#### **15.2 Chemical Safety Assessment**

N/A

**SECTION 16 – OTHER INFORMATION** 

Information for this safety data sheet was obtained from sources considered technically accurate and reliable. Whilst every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of, or reliance on, any information contained in this form.

#### Safety Data Sheet 29 CFR 1910.1200

Product Code(s):	FP11
Сотрапу:	Theatre Effects 1810 Airport Exchange Blvd. Suite 400 Erlanger, KY 41018 800-791-7646 24 Hr Emergency: INFOTRAC, 1-800-535-5053 (outside USA +1-352-323-3500)
Section 2: Hazards Identification	ADDRY HANN HANN BEANN
Hazard Pictograms:	
Signal Word:	Danger
Hazard Category:	Flammable Solid
Hazard Statements:	H228: Flammable solid
Precautionary	P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking P241: Use explosion-proof lighting or other equipment in proximity of product P230: Keep wetted with water until usage P280: Wear protective gloves/protective clothing/eye protection/face protection P370+378: In case of fire: use water for extinction
Hazards not otherwise classified:	Not applicable, none known.

#### Section 3: Composition / Information on Ingredients

**Company and Product Identification** 

Product Name: Pyrowizard Flash Cotton

Hazardous substance (name)	Hazard Category	CAS#	Weight %
nitrocellulose	Flam SId 1	9004-70-0	<75
water	not classified	1330-20-7	>25

#### Section 4: First Aid Measures

Section 1:

General Info: No specific measures necessary for first aid response. Material does not represent a health hazard,

Notable Exposure Exposure to product is not likely to result in symptoms.

symptoms:

If ingested: Rinse mouth. Drink plenty of water.

If inhaled: Remove to fresh air.

Eye contact: Eye contact not likely to result in any health hazards. Rinse eye to remove any particulates.

Skin contact: Rinse with water, Consult medical advise if irritation develops,

Additional Info: No further information.

General Info: Product is highly flammable when dried. It can be handled safely when wetted with water. After drying, this product will burn very rapidly releasing extreme heat.

Extinguishing Method / Water is the preferred extinguishing agent. Isolate area, and if possible fight fire from upwind. Wetted Equipment: product that is in contact with fire will dry and combust, increasing fire hazard.

**Hazardous** Constituents associated with burning / combustion are to be considered hazardous. Utilize product where **Decomposition Info:** ventilation is adequate. Large quantities should not be burned in small spaces.

#### Section 6: Accidental Release Measures

Personal precautions, Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Released material protective equipment will be a solid article that can be made less hazardous by wetting further with water. Ensure area is properly and procedures: ventilated.

Containment Equipment Not applicable. Material can be stored in the original receptable. and Procedures:

Cleanup Procedures: Care should be taken to avoid ignition. Wetting product with water will render released material nonhazardous.

#### Section 7: Handling and Storage

Safe Handling Do not handle until all safety precautions have been read and understood. Do not handle near an open flame Precautions: or sources of ignition until product effect is desired. Ensure adequate ventilation. Take precautionary measures against static discharges. Avoid breathing vapors.

Recommendations for Store in product package until usage is warranted, Storage:

Incompatibilities: Store away from strong acids or oxidizing agents. Refer to Section 10.

#### Section 8: Exposure Control / Personal Protection

General / Engineering Local exhaust ventilation should be utilized to control fumes. Nearby water supply may be necessary to wet Controls: product (if needed) or to combat any uncontrolled fire.

Work Clothing: No specific protective clothing needed.

Eye/face protection: None needed for product as received. When using product, utilize eyewear if situation necessitates additional safe measures.

Skin Protection: None needed for product as received. When using product, utilize fire resistant gloves if situation necessitates additional safe measures.

Respiratory Protection: Not required under normal usage.

Additional Information: Observe good chemical hygiene practices. Do not smoke while using this product. Care should be taken to observe surroundings prior to utilizing.

#### Section 9: Physical and Chemical Properties

State: Solic artic	8	Not avail Freezing	Point: Not avail
Color: Whit tan	e or Boiling Point/Range:	Not avail	pH Not avail
Sp Grav: Not a	avail Odor:		Water Insoluble Ibility:
Evaporation rate: Not a	avail Flash Point:	(see autoign) Part. Co octanol/	<b>beff (n-</b> Not avail <b>'water)</b>
Upper Flam Limits: Not a	avail Lower Flam Limits:		Vapor - essure:
VOC Content (lbs/gal): Not a	avail Viscosity:	·	gnition 160C (320F) Temp:

#### Section 10: Stability and Reactivity

General: Product becomes less stable as it dries. Flammability characteristics increase as water is lost from product.

Incompatible materials: Strong oxidizing agents, strong acids.

**Decomposition** No decomposition products known. Constituents associated with burning may be harmful. **products:** 

#### Section 11: Toxicological Information

General Information: Product does not pose a health hazard.

Toxicological Product has not been tested, yet is not considered to be an acute or chronic health hazard. Information (product):

Likely Routes of Inhalation of vapors during burning. Exposure:

Carcinogenicity or Product is not a carcinogen or mutagen. mutagenicity:

Sensitization: Product is not expected to be a sensitizer,

Other Notes: Not applicable

#### Section 12: Ecological Information

General information: Product not tested. Not expected to pose an environmental hazard.

Aquatic toxicity: Not expected to have any aquatic toxicity characteristics.

Degradation / Mobility info: No specific data available.

Bioaccumulative potential: Product is not bioaccumulative.

#### Section 13: Disposal Information

**Product disposal:** Dispose of product in accordance with local, regional, and national regulations. Product is to be considered a flammable solid / ignitable waste.

Container disposal: No further information.

#### Section 14: Transport Information

20

DOT: Classified as Dangerous Goods per 49 CFR (UN2555). Product is sold in excepted quantities.

Comments: Inquire for further information.

#### Section 15: Regulatory Information

TSCA: All components listed on the TSCA 8(b) inventory.

CERCLA RQ: Not applicable.

SARA 311/312: Product is a flammable hazard.

SARA 313 Not applicable.

California Prop 65 Not applicable. Substances:

#### Section 16: Other Information

HMIS Rating:	H:1, F:3, R:3		
SDS Author:	CCS, LLC	Version Date:	5/19/2015

The provider of this SDS urges the buyer or user to study it carefully and consult with appropriate expertise, as necessary to become aware of and understand the data contained herein. This information is provided in good faith and is believed to be accurate as of the effective date, or version date shown. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer or user's responsibility to ensure that its activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. It is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Information regarding the exact chemical identity or concentration of certain substances may be reserved as a trade secret as per 29 CFR 1910.1200(i).

#### **Safety Data Sheet** 29 CFR 1910.1200

Section 1:	Company and Product Ident Product Name: Pyrow		er.			
	Suite 4 Erlang 800-79 24 Hr	e Effects .irport Exchang 00 er, KY 41018 1-7646	ge Blvd, FOTRAC, 1-800-5	35-5053	y.	
Section 2:	Hazards Identification	carried	IILANK	HANK	10.45%	
	Hazard Pictograms:		>			
	Signal Word:	Danger				
	Hazard Category:	Flammable	e Solid			
	Hazard Statements:	H228: Flar	nmable solid			
	Precautionary	P241: Use P230: Kee P280: Wea	p away from heat/s explosion-proof lig p wetted with wate r protective gloves : In case of fire: use	ghting or other equ r until usage /protective clothin	ipment in proximit	y of product
	Hazards not otherwise classified:	Not applica	able, none known.			

#### **Composition / Information on Ingredients** Section 3:

Hazardous substance (name)	Hazard Category	CAS#	Weight %
nitrocellulose	Flam SId 1	9004-70-0	<75
water	not classified	1330-20-7	>25

#### Section 4: **First Aid Measures**

General Info: No specific measures necessary for first aid response. Material does not represent a health hazard.

Notable Exposure Exposure to product is not likely to result in symptoms.

symptoms:

If ingested: Rinse mouth. Drink plenty of water.

If inhaled: Remove to fresh air.

Eye contact: Eye contact not likely to result in any health hazards. Rinse eye to remove any particulates.

Skin contact: Rinse with water. Consult medical advise if irritation develops.

Additional Info: No further information.

General Info: Product is highly flammable when dried. It can be handled safely when wetted with water. After drying, this product will burn very rapidly releasing extreme heat.

Extinguishing Method / Water is the preferred extinguishing agent. Isolate area, and if possible fight fire from upwind. Wetted Equipment: product that is in contact with fire will dry and combust, increasing fire hazard.

Hazardous Constituents associated with burning / combustion are to be considered hazardous. Utilize product where **Decomposition Info:** ventilation is adequate. Large quantities should not be burned in small spaces.

#### Section 6: Accidental Release Measures

Personal precautions, Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Released material protective equipment will be a solid article that can be made less hazardous by wetting further with water. Ensure area is properly and procedures: ventilated.

Containment Equipment Not applicable. Material can be stored in the original receptable. and Procedures:

Cleanup Procedures: Care should be taken to avoid ignition. Wetting product with water will render released material nonhazardous.

#### Section 7: Handling and Storage

Safe Handling Do not handle until all safety precautions have been read and understood. Do not handle near an open flame Precautions: or sources of ignition until product effect is desired. Ensure adequate ventilation. Take precautionary measures against static discharges. Avoid breathing vapors.

Recommendations for Store in product package until usage is warranted,

Storage:

Incompatibilities: Store away from strong acids or oxidizing agents., Refer to Section 10,

#### Section 8: Exposure Control / Personal Protection

General / Engineering Local exhaust ventilation should be utilized to control fumes. Nearby water supply may be necessary to wet Controls: product (if needed) or to combat any uncontrolled fire.

Work Clothing: No specific protective clothing needed.

Eye/face protection: None needed for product as received. When using product, utilize eyewear if situation necessitates additional safe measures.

Skin Protection: None needed for product as received. When using product, utilize fire resistant gloves if situation necessitates additional safe measures.

Respiratory Protection: Not required under normal usage.

Additional Information: Observe good chemical hygiene practices. Do not smoke while using this product. Care should be taken to observe surroundings prior to utilizing.

#### Section 9: Physical and Chemical Properties

State: Solid article	Melting Point: Not avail	Freezing Point: Not avail
Color: White or tan	Boiling Not avail Point/Range:	pH Not avail
Sp Grav: Not avail	Odor: Odorless	Water Insoluble Solubility:
Evaporation rate: Not avail	Flash Point: (see autoign)	Part. Coeff (n- Not avail octanol/water)
Upper Flam Limits: Not avail	Lower Flam Not avail Limits:	Vapor - Pressure:
VOC Content (lbs/gal): Not avail	Viscosity: Not avail	Autoignition 160C (320F) Temp:

#### Section 10: Stability and Reactivity

General: Product becomes less stable as it dries. Flammability characteristics increase as water is lost from product.

Incompatible materials: Strong oxidizing agents, strong acids.

**Decomposition** No decomposition products known. Constituents associated with burning may be harmful. **products:** 

#### Section 11: Toxicological Information

General Information: Product does not pose a health hazard,

Toxicological Product has not been tested, yet is not considered to be an acute or chronic health hazard. Information (product):

Likely Routes of Inhalation of vapors during burning. Exposure:

Carcinogenicity or Product is not a carcinogen or mutagen. mutagenicity:

Sensitization: Product is not expected to be a sensitizer.

Other Notes: Not applicable.

#### Section 12: Ecological Information

General information: Product not tested. Not expected to pose an environmental hazard.

Aquatic toxicity: Not expected to have any aquatic toxicity characteristics.

Degradation / Mobility info: No specific data available.

Bioaccumulative potential: Product is not bioaccumulative.

#### Section 13: Disposal Information

Product disposal: Dispose of product in accordance with local, regional, and national regulations. Product is to be considered a flammable solid / ignitable waste.

Container disposal: No further information.

#### Section 14: Transport Information

DOT: Classified as Dangerous Goods per 49 CFR (UN2555), Product is sold in excepted quantities.

Comments: Inquire for further information.

#### Section 15: Regulatory Information

TSCA: All components listed on the TSCA 8(b) inventory

CERCLA RQ: Not applicable

SARA 311/312: Product is a flammable hazard.

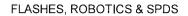
SARA 313 Not applicable.

California Prop 65 Not applicable. Substances:

#### Section 16: Other Information

HMIS Rating:	H:1, F:3, R:3		
SDS Author:	CCS, LLC	Version Date:	5/19/2015

The provider of this SDS urges the buyer or user to study it carefully and consult with appropriate expertise, as necessary to become aware of and understand the data contained herein. This information is provided in good faith and is believed to be accurate as of the effective date, or version date shown. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer or user's responsibility to ensure that its activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. It is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Information regarding the exact chemical identity or concentration of certain substances may be reserved as a trade secret as per 29 CFR 1910.1200(i).





# SAFETY DATA SHEET

**SECTION 1 – PRODUCT IDENTIFICATION** 

#### **1.1 Product identifier**

#### Product Name: FLASHES, ROBOTICS & SPDS

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Articles pyrotechnic for technical purposes

#### 1.3 Details of the Supplier of the Safety Data Sheet

Supplier: Le Maitre Ltd Street/P.O. Box: 6 Forval Close Postcode/City: CR4 4NE, Mitcham Country: England Telephone number: +44 (0)20 8646 2222 Email: info@lemaitreltd.com

#### 1.4 Emergency telephone number

**Please contact:** +44 (0)151 951 3317 Health and Safety Executive (HSE) Chemicals Regulation Directorate **Other comments:** Only available during office hours

SECTION 2 – HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

H204: Fire or projection hazard

#### 2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 (CLP)

Hazard category: Division 1.4Hazard pictograms:Signal word: WarningFile or projection hazardHazard statement: H204 Fire or projection hazardPrecautionary Statements Prevention: P210, P234Precautionary Statements Response: P370 + P372 + P380 + P373Precautionary Statements Storage: P401Precautionary Statements Disposal: P501P501

# grams:

#### 2.3 Other hazards

There are no chronic effects from handling the product appropriately When used in the correct manner, any fallout does not pose a risk to personal health.

#### SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.1 Substances

Name	CAS No.	EC No.
Aluminium powder	7429-90-5	231-072-3
Ammonium Perchlorate	7798-98-9	232-235-1
Barium Nitrate	10022-31-8	233-020-5
Chlorinated Rubber	9006-03-5	918-668-5
Copper Carbonate	1184-64-1	214-671-4
Diphenylamine	122-39-4	204-539-4
Graphite	7782-42-5	231-955-3
Magnesium powder	7439-54-4	231-104-6
Nitrocellulose	9004-70-0	603-037-0
Potassium Nitrate	7757-79-1	231-818-8
Potassium Perchlorate	7778-47-7	231-912-9
Sodium Nitrate	7631-99-4	231-554-3
Strontium Nitrate	10042-76-9	233-131-9
Talc	14087-96-6	238-877-9
Titanium powder	7440-32-6	231-142-3

SECTION 4 - FIRST AID MEASURES

#### 4.1 Description of first aid measures

General notes: In the case of accident or sickness, seek medical advice immediately.
Following inhalation: Remove casualty to fresh air and keep warm and at rest.
Following skin contact: Wash immediately with soap and water
Following eye contact: Immediately flush with water
Following ingestion: If accidently swallowed, rinse the mouth with plenty of water (only if the person is conscious) and obtain medical attention
Self protection of the first aider: Pay attention to self protection!
4.2 Most important symptoms and effects, both acute and delayed

Irritation to the eyes and irritation to the skin

#### 4.3 Indication of any immediate medical attention and special treatment needed

First aid, decontamination, treatment of symptoms

**SECTION 5 – FIREFIGHTING MEASURES** 

#### 5.1 Extinguishing media

**Suitable extinguishing media:** If there is a small flame persisting from the effect itself (or from the surrounding area) this can be extinguished with a dry powder or Carbon Dioxide Fire Extinguisher if trained to do so.

For larger fires do not attempt to extinguish any fire unless specifically trained to do so. Evacuate area and contact emergency services

Unsuitable extinguishing media: N/A

#### 5.2 Special hazards arising from the substance or mixture

Hazardous combustion products may be produced.

Pyrotechnic devices can burn violently and the state of the fire will be dependent on composition, packaging and containment.

#### FLASHES, ROBOTICS & SPDS

#### 5.3 Advice for firefighters

Exercise extreme caution. Special protective equipment for firefighters: wear self-contained breathing apparatus and chemical protective clothing

#### SECTION 6 - ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel: Suitable personal protective equipment. Remove ignition sources.

**6.1.2 For emergency responders:** Remove persons to safety. Isolate hazard area and deny entry. Ventilate closed spaces before entering.

#### 6.2 Environmental precautions

Prevent large spillages from entering surface water or drains.

#### 6.3 Methods and material for containment and cleaning up

Dispose of as special waste in compliance with local and national regulations.

#### 6.4 Reference to other sections

See sections 8 and 13

SECTION 7 - HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Protective measures: Handle with caution.
Measures to prevent fire: No smoking and no naked flames.
Measures to prevent aerosol and dust generation: Do not tamper with the item.
Advice on general occupational hygiene: Do not eat, drink or smoke in work areas. Wash hands after use.

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

**Technical measures and storage conditions:** Store in cool, dry place. **Requirments for storage rooms and vessels:** Always store in original packaging with appropriate marking and labelling. Stores should be adequately secured and identified.

#### 7.3 Specific end use(s)

The identified use for this product is detailed in section 1.2.

#### SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1 Control parameters

Workplace exposure limits.

#### 8.2 Exposure controls

8.2.1 Appropriate engineering controls: Provide adequate ventilation.

8.2.2 Personal protection equipment: Appropriate Safety goggles.

8.2.3 Environmental exposure controls: No specific measures.

#### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

Appearance: Solid sealed tube

As this is a sealed unit chemical properties are not applicable

#### 9.2 Other information

No additional information relevant to safe use.

SECTION 10 - STABILITY AND REACTIVITY

#### 10.1 Reactivity

No specific data related to reactivity available.

#### 10.2 Chemical stability

Stable under recommended conditions of storage and use.

#### 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

#### 10.4 Conditions to avoid

Avoid high temperatures, shock, static discharge, vibrations or other physical stresses that might result in a hazardous situation.

#### 10.5 Incompatible materials

As this is a sealed unit incompatible materials are not applicable.

#### 10.6 Hazardous decomposition products

Decomposition does not occur during normal circumstances of storage, transport and handling. Upon functioning various gases may be emitted including oxides.

#### SECTION 11 - TOXILOGICAL INFORMATION

#### 11.1 Information on toxilogical effects

As this is a sealed unit this only applies to spillages. May cause eye and skin irritation. Inhalation or ingestion may cause discomfort.

#### **SECTION 12 - ECOLOGICAL INFORMATION**

#### **12.1 Toxicity**

Not classified as dangerous for the environment/aquatic toxicant

12.2 Persistance and degradability N/A

12.3 Bioaccumulative potential N/A

#### 12.4 Mobility in soil N/A

12.5 Results of PBT and vPvB assessment N/A

12.6 Other adverse effects N/A

#### FLASHES, ROBOTICS & SPDS

#### 13.1 Waste treatment methods

No specific regulations apply to packagings or spent devices. Unused devices should be returned to the manufacturer, functioned in a safe manner or soaked in a vessel of water for 48 hours. If soaked in water review local and national requirements prior to disposal.

#### **SECTION 14 – TRANSPORT INFORMATION**

#### 14.1 UN number

UN0431 or UN0432

#### 14.2 UN proper shipping name

Articles pyrotechnic for technical purposes

#### 14.3 Transport hazard class(es)

1.4G (UN0431) or 1.4S (UN0432)

#### 14.4 Packing group

N/A

#### 14.5 Environmental hazards

None

#### 14.6 Special precautions for user

No smoking or naked flames

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

N/A

#### **SECTION 15 – REGULATORY INFORMATION**

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Explosives Regulations 2014 and all orders of council, HSG 36, Local Authorities and the Health and Safety Executive.

Pyrotechnic Articles European Directive 2013/29/EU

#### **15.2 Chemical Safety Assessment**

N/A

#### SECTION 16 - OTHER INFORMATION

Information for this safety data sheet was obtained from sources considered technically accurate and reliable. Whilst every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of, or reliance on, any information contained in this form.

# Flame System

The FireFly mini propane flame unit is an economical solution for small applications that require a real flame effect. The units can be operated directly off the fuel tank, with no gas accumulator. The FireFly complies with applicable codes and bears the ARL testing labs certification. The FireFly uses a standing pilot system controlled by a Honeywell<sup>®</sup> Intermittent Pilot Module to assure reliable and safe light-off. A CE listed version is available



SERVICES, INC.

SPECIAL EFFECTS





8210 South County Road 39 Plant City, Florida 33567

www.sigmaservices.com

# Le Torcia Provides an Easy to Use, Safe Flame Effect.

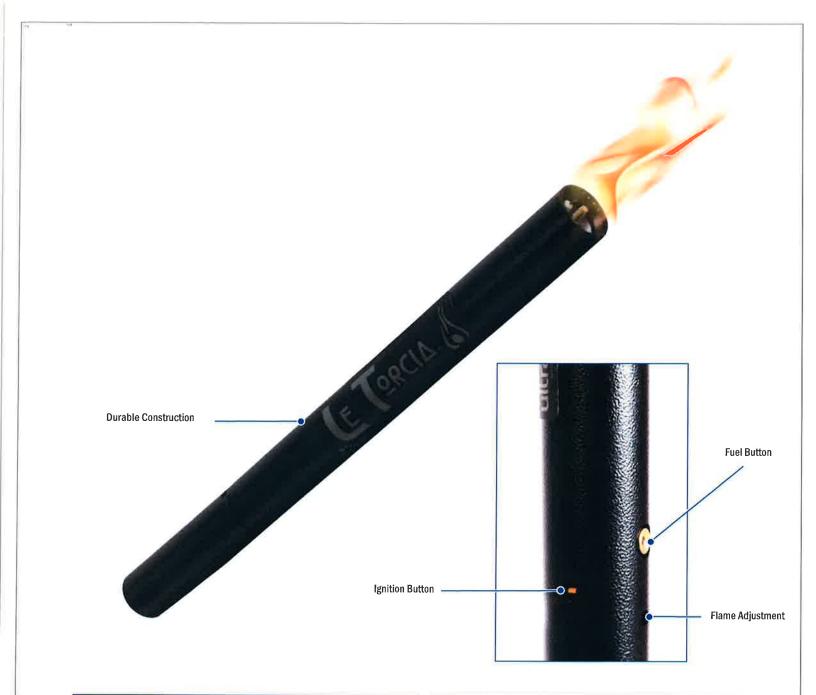


Le Torcia is a lightweight, durable device that provides a realistic flame effect. It's simple and easy to use design includes an electric switch to create that instant flame. It can be used on it's own or implemented into props. The gas safety release ensures performers stay safe.

Using our single 2 oz. butane canister, Le Torcia can operate for up to 20 minutes. It features an adjustable flame height, with a maximum height of approximately 6". Heat Exchanger. The one-gallon integrated fluid reservoir and full function remote control with timer allow you to create a range water-based fog effects. Ultratec's butane fluid is used to create realistic and safe flame effects. Using our butane fluid maintains your five-year warranty against manufacturer's defect.



#### ultratecfx.com SETTING THE STANDARD IN SPECIAL EFFECTS FOR OVER 25 YEARS



CLF-4400 Le Torcia - Electric Ignition	MODELS	
	CLF-4400	Le Torcia - Electric Ignition

OUTPUT	
Run Time:	20 minutes per 2 oz. butane container
Flame Height:	adjustable (maximum 6 in / 15 cm)
Flame Width:	approximately 4 in / 10.16 cm

#### WARRANTY

The Le Torcia has a five-year warranty against manufacturer's defect provided Ultratec fluids are used.

SPECIFICATIONS		
Length:	22 in / 56 cm	
Diameter:	1 5/8 in / 4.13 cm	
Net Weight:	2 lbs / 0.91 kgs	

Visit www.ultratecfx.com to see available accessories, parts and for a complete set of specifications on all models.

# ultratecfx.com

Canada - USA - Germany Phone: 519-659-7972 / Toll Free: 800-388-0617 Email: sales@ultratecfx.com





# ROWIZARD FLASH GUI Catalog No. MG01

Read these directions very carefully. This product uses flammable material and is for professional use only. The manufacturer is not responsible for any injury or liability that is the result of the user's failure to follow the specific instructions stated below.

#### **Directions:**

Take the Gun and insert an 'AA' alkaline battery (not included) in the battery holder. It doesn't matter in which direction the battery is turned. Without loading the gun, press the red firing button and look into the barrel. You'll see a glowing coil similar to the one in an automobile cigarette lighter. This glowing coil is the glo-plug. The fact that it glows tells you that the battery is operational and the glo-plug is in good working order.

To prevent accidental firing while loading, remove the glo-plug clip from the glo-plug now. (The glo-plug clip is a black clip at the end of a thin wire.) Be sure not to lose the tiny plastic insulating washer that fits between the glo-plug and the glo-plug clip. Take a pinch of Flash Cotton, fluff it up, and insert it into the brass barrel. Use a blunt instrument to press the cotton against the glo-plug coil. (The eraser end of a pencil works well for this.) Don't use a pointed instrument because the glo-plug coil can be easily damaged. Now take a piece of Flash Paper 3" or 4" square, loosely ball it up, and insert it into the brass barrel. Use a blunt instrument to gently push the Paper up against the Cotton.

Grip the gun by the finger clips with the brass ears between the middle two fingers of the right hand. Bend the ears to fit the shape of your hand. Replace the glo-plug clip on the end of the glo-plug. Be sure to use the insulating plastic washer. The Gun is now ready to fire. From this time forward, do not point the Gun at any person or flammable object. Use your thumb to press the button and fire the Gun. Depending on the strength of the battery and the condition of the glo-plug, you may have to hold the button down for up to a full second to ignite the Cotton. A ball of fire streaking out of the barrel will result.

#### **Caution:**

Always remove the glo-plug clip before loading. NEVER USE FLASH POWDER IN THIS DEVICE !! An explosion will result. Never fire at people, animals or flammable objects. Never stick your finger in the barrel. Conduct a preliminary test in a safe location. The fireball can travel up to 20 feet.

#### **Tips:**

Make sure the insulating washer is in place or the Gun may not fire. If Cotton is unavailable, a small wad of Flash Paper can be substituted. If the glo-plug burns outs, it can be easily replaced by screwing it outward from the brass barrel (counter-clockwise) with a small wrench. Don't over-tighten the new plug. The brass barrel can be slid forward or back to suit your hand. The finger clips can be trimmed for a more comfortable fit. If the

Paper shoots out without lighting, you used too much Cotton.

#### Warning:

Read these directions carefully and follow them exactly. Misuse is dangerous. The manufacturer is not responsible for any injury or liability that is the result of the user's failure to follow the specific instructions stated above. This product is manufactured without any warranties, express or implied. It is for professional use only. It is not sold to minors. For more information, consult the technical manual "Special Effects with Fire and Smoke" available from us or your dealer. **DANGER! USE AT YOUR OWN RISK!** 

#### **NFPA 1126 Compliance Statements:**

This product is intended for indoor use. It creates a streaking flash of fire with no smoke. An MSDS is not applicable. It is manufactured by Theatre Effects, 1810 Airport Exchange Blvd, Suite 400, Erlanger, KY 41018, 859-647-8844

#### IMPORTANT FACTS YOU SHOULD KNOW ABOUT GLO-PLUGS

Here is vital information on how to keep your glo-plug working at peak performance, and what to look for if a malfunction occurs.

1. There are two types of glo-plugs: 1.5 volt and 3 volt. The 1.5 volt is for use in all single battery devices and the 3 volt is for use in all double battery devices. (The number of barrels is imaterial.) If the wrong glo-plug is installed in a device, it will either burn out, or burn very dimly - inadequate for ignition.

2. We've found that alkaline batteries last the longest and give your glo-plug the most firing power - usually 30 to 40 firings before your glo-plug grows dim and battery replacement is necessary.

3. Our glo-plugs usually last 20 to 30 firings before replacement is needed (due to corrosion and/or crushing of the inner wire). To remove the glo-plug, first unplug the wire. Then turn out the glo-plug counter-clockwise with a small wrench or pliers. Theatre Effects glo-plugs have a special size threading and hobby store ones won't fit. Replacements are available from your magic dealer or directly from us.

4. If your device doesn't fire, first extract the paper and check the glow coil. A dim glow indicates weak batteries or that your glo-plug may have been crushed. To correct the problem, remove the glo-plug, and with a straight pin, carefully lift the center coil upward so that it's level with the top surface. If the platinum wire breaks, a new plug is needed.

5. Flash Cotton is an excellent primer for all glo-plug devices. Take a pinch of Flash Cotton, fluff it up, and insert it against the glo-plug coil before inserting Flash Paper. NOTE: If your Paper pops out without lighting, you're using too much Cotton. Since Cotton ignites more easily than Paper, your glo-plug and battery will last much longer when Cotton is used as a primer.

6. For the best reliability, use only Theatre Effects/Pyrowizard brand Flash Paper in your device. Don't use Flash Strips - use one piece of Flash Paper instead of many small pieces. If your first firing yields only a small puff of smoke, it's an indication that a larger amount of Paper is needed. Flash Powder will destroy your glo-plug. (That's why Flash Cotton is used as a "fuse" in battery-powered glo-plug Flash Pots.) Never use Flash Powder in a glo-plug device. (And never ever use Flash Powder in a handheld device.)

7. Barrel cleaning is a must if you want good results from your product. Burnt Flash Paper builds up a sticky residue inside your device's barrel. This buildup causes slow lighting and great restriction to your projecting fireball. To clean, remove the glo-plug and brush out the barrel with a stiff wire brush. Round wire brushes can be found at most gun, plumbing, and hardware stores; buy one that fits your barrel size. Twist the wire brush inside your barrel until the inside becomes clean and shiny. When your barrel is clean, it will use less paper and shoot much farther. Re-install the plug, and you're ready to go.

8. There's a plastic insulating washer that fits between the glo-plug and the glo-plug clip. It prevents the glo-plug clip from touching the "nut" of the glo-plug. The nut is the electrical "ground" for the glo-plug, while the center shaft is the "hot". If the hot and the ground are shorted together by the clip, your device won't fire. If you lose your plastic insulating washer, request another from us. Meanwhile, your device will still work if you don't push the clip on so far that it touches the base (nut) of the glo-plug (i.e., the clip should only make electrical contact with the glo-plug's center shaft).



Roscoflamex fire retardants have been formulated to meet the extreme needs of the entertainment industry, designed to treat the wide range of diverse materials used in scenery, props and costume construction. Roscoflamex products meet fire retardant standards as established by NFPA, ASTM, ANSI, and UL and have been approved by the CA Fire Marshall and New York City Fire Dept.

**Roscoflamex for Raw Wood** is intended for untreated wood, plywood, cellulose board, acoustical board, and corrugated paper.

- PRODUCT NO: 150 079WD 0128 1 US Gallon (3.79 L)
- DESCRIPTION: Roscoflamex for Raw Wood is a proprietary, non-durable flame retardant.
- APPEARANCE: Pale Orange liquid that dries clear.
- USE: Unsealed raw wood, straw and other cellulose materials that can absorb liquids. Not for use on wood items that contain bark or pitch.
- FINISH: Typically leaves no residue. In some instances, a fine white powder may develop based on absorption of the wood treated
- APPLICATION: Spray, brush or dip. Perform tests to determine the appropriate soaking time to achieve an effective treatment. Properly treated material will have increased in weight by 10-20% when dry.
- MIX RATIO: Roscoflamex Raw Wood is designed to be used straight out of the bottle. Do not dilute.
- HAZARD: May cause skin and eye irritation on some people. Use in a well ventilated area.
- COVERAGE: Estimated 150-200 square feet per gallon.
- DRYING: Allow to dry naturally or using forced hot air.
- COMPOSITION: Water soluble inorganic salts. Safe for professional use.
- CERTIFICATION: ASTM E84 Class B; NYC FD Certificate of Approval; CA State Fire Marshall
- OTHER: pH 7.1

# Roscoflamex PC



Roscoflamex fire retardants have been formulated to meet the extreme needs of the entertainment industry, designed to treat the wide range of diverse materials used in scenery, props and costume construction. Roscoflamex products meet fire retardant standards as established by NFPA, ASTM, and UL and have been approved by the CA Fire Marshall and New York City Fire Dept.

**Roscoflamex for Paper & Cardstock** effectively treats papers, non-corrugated cardboard and uncoated cardstock materials. Premixed for easy use straight out of the bottle, Roscoflamex for Paper & Cardstock is perfect for props and set pieces made from flammable paper products.



#### **SPECIFICATIONS**

Description:	Roscoflamex for Paint & Cardstock is a proprietary, non-durable flame retardant.
Appearance:	Clear liquid that dries clear
Use:	Paper, non-corrugated cardboard, uncoated cardstock, newsprint and other cellulosic materials,
Finish:	Leaves no residue and will not affect the hand of the fabric.
Application:	Spray, brush or dip. Perform tests to determine the appropriate soaking time to achieve an effective treatment. Properly treated material will have increased in weight by 8-15% when dry.
Mix Ratio:	Roscoflamex for Paint & Cardstock is designed to be used straight out of the bottle,
Hazard:	May cause skin irritation. Use in a well ventilated area.
Coverage:	Estimated 400 square feet per gallon
Drying:	Allow to dry naturally or using forced hot air.
Composition:	Water soluble inorganic salts. Safe for professional use.
Certification:	NFPA 701; FDNY #5809 Certificate of Approval; CA State Fire Marshall #C-25001.
Other:	ρH - 7.1

Roscoflamex P	C	
Item Code	Description	
150 079PC 0128	1 US Gallon (3.79 L)	



Roscoflamex fire retardants have been formulated to meet the extreme needs of the entertainment industry, designed to treat the wide range of diverse materials used in scenery, props and costume construction. Roscoflamex products meet fire retardant standards as established by NFPA, ASTM, ANSI, and UL and have been approved by the CA Fire Marshall and New York City Fire Dept.

**Roscoflamex for Natural Fibers** should be used on fabrics like cotton, linen, wool, burlap and most other materials made of natural fibers. Premixed for easy use straight out of the bottle, Roscoflamex for Natural Fibers is perfect for treating backdrops, velours, muslin cycloramas, and decorative fabric panels.

PRODUCT NO:	150 079NF 0128 - 1 US Gallon (3.79 L)
DESCRIPTION:	Roscoflamex for Natural Fibers is a proprietary, non-durable flame retardant.
APPEARANCE:	Clear liquid that dries clear.
USE:	Cotton, linen, wool, burlap and most natural fiber fabrics.
FINISH:	Leaves no residue and will not affect the hand of the fabric.
APPLICATION:	Spray, brush or dip. Perform tests to determine the appropriate soaking time to achieve an effective treatment. Properly treated material will have increased in weight by 10-20% when dry.
MIX RATIO:	Roscoflamex Natural Fiber is designed to be used straight out of the bottle. In rare instances when a residue develops on the surface of the fabric, dilute 15% with water and re-test.
HAZARD:	May cause skin and eye irritation on some people. Use in a well ventilated area.
COVERAGE:	Estimated 500 square feet per gallon, based on weight.
DRYING:	Allow to dry naturally or using forced hot air.
COMPOSITION:	Water soluble inorganic salts. Safe for professional use.
CERTIFICATION:	NFPA 701; NYC FD Certificate of Approval #5022; CA State Fire Marshall C-139.01
OTHER:	pH – 7.1



Roscoflamex fire retardants have been formulated to meet the extreme needs of the entertainment industry, designed to treat the wide range of diverse materials used in scenery, props and costume construction. Roscoflamex products meet fire retardant standards as established by NFPA, ASTM, ANSI, and UL and have been approved by the CA Fire Marshall and New York City Fire Dept.

**Roscoflamex for Synthetic Fibers** effectively treats many synthetic fabrics, such as polyesters, nylons, acrylics and rayons, as well as most cotton/synthetic blends . Premixed for easy use straight out of the bottle, Roscoflamex for Synthetic Fibers is perfect for the varied range of fabrics used in modern scenic and costume construction.

PRODUCT NO:	150 079SF 0128 - 1 US Gallon (3.79 L)
DESCRIPTION:	Roscoflamex for Synthetic Fibers is is a proprietary, non-durable flame retardant.
APPEARANCE:	Clear liquid, dries clear.
USE:	Polyester, acrylic, and most synthetic fabrics and blends.
FINISH:	Leaves no residue and will not affect the hand of the fabric.
APPLICATION:	Spray, brush or dip. Perform tests to determine the appropriate soaking time to achieve an effective treatment. Properly treated material will have increased in weight by 10-20% when dry.
MIX RATIO:	Roscoflamex Synthetic Fiber is designed to be used straight out of the bottle. In rare instances when a residue develops on the surface of the fabric, dilute 15% with water and re-test.
HAZARD:	May cause skin and eye irritation on some people. Use in a well ventilated area.
COVERAGE:	Estimated 500 square feet per gallon, based on weight.
DRYING:	Allow to dry naturally or using forced hot air.
COMPOSITION:	Water soluble inorganic salts. Safe for professional use.
CERTIFICATION:	NFPA 701; NYC FD Certificate of Approval #5022; CA State Fire Marshall C-139.02
OTHER:	pH – 7.1



# **Certificate of Flame Resistance**

January 2023

Liba Fabrics is a business operating in New York, New York with Warehouses in New York and New Jersey.

This is to certify that the fabric below is manufactured with a yarn that is inherently flame resistant or a durable flame retardant process. The fabric or substrate described below meets the minimum requirements of flame resistance established by the following test:

• NFPA 701-2019, TM #1 (small scale)

Liba Fabrics recommends annual testing of the material using the NFPA 705 Field Test Method for Textiles, accumulations of dust and liquids may reduce the flame resistance of the material.

Fabric:

• Style 461 – 100% Cotton FR 57" Duvetyne 9oz (All Colors)

WOVEN INTO YOUR SUCCESS



Jacob Visoky Vice President FDNY C-15 #91283952 Expires 5/21/2024 Jacob Visoky

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