



SPECIAL EVENT APPLICATION

CITY OF TOMBALL, TEXAS | 401 Market Street | Tomball, Texas 77375 | 281-351-5484

An application to stage an event within the City of Tomball shall be filed with the Community Events Coordinator at least 180 days prior to the event. This application is not to be construed as authorizing or agreeing to any event until formally approved by Tomball City Council.

Date: 06/24/2024 Is this event Co-City sponsored? Yes ___ No X

Request for permission to use a public venue for the following type of event (please check one):

Festival ___ Community Event ___ Arts & Crafts Event ___ Music Event ___ Other (specify) n/a this is a private wedding

1. Event title: Boxwood Manor wedding- indoor cold sparks
2. Sponsoring entity: ROAR Over Texas, Inc.
3. Is this organization based in Tomball: Yes ___ No X
4. Is this organization *non-profit* ___ or *for-profit* X *Attach 501 (c) (3) tax exemption if applicable
5. Contact: Oscar Lopez Phone: 832 920 6138
6. Contact address: 9734 Tucker Cypress Dr.
7. Contact email: admin@roarover texas.com
8. Event date: July 14, 2024
9. Event times: Start 7:15pm Finish 7:25pm Set-up 6:15pm Breakdown 7:30pm
10. Is this event for charity? Yes ___ No X
11. If yes, what charity? _____ Tax ID _____
12. If yes, what percentage of net proceeds will be donated to the charity? _____
13. On-site contact: _____ Mobile Phone: _____
14. Estimated number of attendees: 160
15. Detailed site map in attached: Yes X No ___
16. Is this event open to the public: Yes ___ No X
17. Admission fee: \$ N/A Free ___
18. Time at which event staff will begin to arrive: N/A. ROAR Over Texas will arrive approx 6:15pm
19. The applicant will defend and hold harmless the City of Tomball from all claims, demands, actions or causes of action, of whatsoever nature or character, arising out of or by reason of the conduct of the activity authorized by such application including attorney fees and expenses.
Initial OL
20. The applicant will provide proof of general liability insurance for the event naming the City of Tomball as additional insured.
Initial OL
21. Name of insurance carrier: Drayton Insurance
22. Are Fireworks included in your event? ___ No X Yes (Must submit Fireworks Event Application)

Signature: 

FOR OFFICIAL USE - Fee required: Yes ___ No ___ Amount Due: \$ _____



SPECIAL EVENT GUIDELINES & APPLICATION

CITY OF TOMBALL, TEXAS

Effective Date: 1/1/2023

INTRODUCTION: Any organized activity or event and open to the general public that involves the use of, or having an impact upon, public property, facilities, public parks, sidewalks, or street areas in the City of Tomball require prior approval and must meet certain requirements for consideration.

PROCEDURES: Several procedures and guidelines must be followed before any non-city staged event may take place. Those include, but are not limited to, the following:

1. A completed Special Event application must be submitted to the Tomball Department of Marketing & Tourism at least 180 days prior to any proposed festival or event. Tomball City Council approval is required if event meets one of the following criteria: sale of alcohol, street closures or contains a request for in-kind donations from the City of Tomball.
2. A written proposal must accompany the application. The proposal should include the overall event concept, a detailed site map, a list of planned activities, hours of operation, proposed vendors, food and beverage, entertainment and any other relevant aspects of the event.
3. If a charity is involved, or is the beneficiary of funds raised, information about the charity needs to be included as a part of the application process, as well as proof of non-profit status. If requesting in-kind services, preference will be given to organizations providing donations to agencies within the city limits of Tomball.
4. A fee equal to the actual cost of city services to host the event will be required of for-profit event planners to be paid no less than ten business days before the event. Non-profit organizations may request city services as an in-kind donation.
5. A meeting will be scheduled with the Tomball Events Team (representatives of Tomball Police, Fire, Public Works, Marketing and Northwest EMS) to discuss the merits and feasibility of the proposed event. The applicant is required to be at this meeting to answer questions regarding the application. Failure to attend will result in the event being cancelled by the City of Tomball.
6. If approved by the Tomball Events Team, the proposed event will be presented to City Council for final approval. The applicant is required to be at this meeting to answer questions regarding the application if necessary.
7. Ten days prior to the event, proof of general liability insurance (\$1,000,000 minimum) must be provided by the event organizer naming the City of Tomball as additional insured.
8. Event coordinators must provide their own volunteers or staff; oversee food and beverage permits, vendors, site clean-up and other aspects of staging a festival/special event.
9. Failure to comply with the guidelines listed above will preclude applicant from staging future events.

For additional information, or to submit an event application, please contact:

Chrislord Templonuevo – Marketing and Tourism Manager

401 Market Street

Tomball, Texas 77375

(281) 290-1035 | Email – ctemplonuevo@tomballtx.gov



FIREWORKS EVENT APPLICATION

CITY OF TOMBALL, TEXAS | 1200 Rudel Dr | Tomball, Texas 77375 | 281-351-7101

An application to stage an event within the City of Tomball shall be filed with the Tomball Fire Department at least 90 days prior to the event. This application is not to be construed as authorizing or agreeing to any event until formally approved by Tomball City Council and permitted by the Tomball Fire Department.

Date: 06/24/2024

Request for permission to conduct and Fireworks Show for the following type of event (please check one):

Festival Community Event Wedding Music Event Other (specify)

1. Event title: Boxwood Manor wedding- indoor cold sparks
2. Contact: Oscar Lopez Phone: 832 920 6138
3. Contact address: 9734 Tucker Cypress Dr.
4. Contact email: admin@roarover texas.com
5. Event date: July 14, 2024
6. Firework Show Event times: Start 7:15pm Finish 7:25pm Set-up 6:15pm Breakdown 7:30pm
7. Fireworks Show Type (Check All that Apply): Aerial Ground Effects
8. State -Licensed Fireworks Provider: ROAR Over Texas, Inc. Phone: 832 920 6138
9. On-site contact: Frank Caamano Mobile Phone: 281 744 9882
10. Estimated number of attendees: 160
11. Detailed site map is attached: Yes No
12. Is this event open to the public: Yes No
13. Admission fee: \$ N/A Free

Signature: 



FIREWORKS EVENT GUIDELINES & APPLICATION

INTRODUCTION: Any non-sanctioned city event, including but not limited to wedding, party, or other gathering, involving the use of any firework. A firework is defined as any firecrackers, cannon crackers, skyrockets, torpedoes, roman candles, sparklers, squibs, fire balloons, star shells, gerbs or any other substance in whatever combination by any designated name intended for use in obtaining visible or audible pyrotechnic display; and such term shall include all articles or substances within the commonly accepted meaning of fireworks whether specially designated and defined or not.

PROCEDURES: Several procedures and guidelines must be followed before any non-city sanctioned event may take place involving fireworks. Those include, but are not limited to, the following:

1. A completed Fireworks Application must be submitted to the Tomball Fire Department at least 90 days prior to any proposed festival or event. Tomball City Council approval is required if event meets one of the following criteria: sale of alcohol, street closures, fireworks, or contains a request for in-kind donations from the City of Tomball.
2. A written proposal must accompany the application. The proposal should include the overall event concept, location, a detailed site map, hours of fireworks show, type of fireworks show (aerial or ground effects). **THIS DOES NOT CONSTITUTE A PERMIT FROM THE FIRE MARSHAL'S OFFICE.**
 - a. Aerial Fireworks Shooting Sites shall not be within
 - i. 1000 feet of a structure on an abutting property
 - ii. 500 feet of a lot line where livestock are present
3. If approved by the Tomball Fire Department, the proposed event will be presented to City Council for final approval. The applicant is required to be at this meeting to answer questions regarding the application if necessary.
4. If approved by the Tomball City Council, no less than 14 days prior to the event the applicant's state licensed pyro-technician shall submit appropriate documentation for permitting to the Tomball Fire Department Fire Prevention Division for permitting.
5. Failure to comply with these guidelines may result in a fine not to exceed \$2000.

For additional information, or to submit a fireworks event application, please contact:

Tomball Fire Department – Fire Prevention Division
1200 Rudel Dr.
Tomball, Texas 77375
(281) 351-7101 | Email – firecode@tomballtx.gov

SPARKULARmini USER MANUAL

- ★ Please read this manual carefully before operating this product.
- ★ This manual contains the warranty card, please keep it well.

Safety Information

- » Unauthorized repair are prohibited, it may cause serious incident.
- » Keep SPARKULAR mini dry and do NOT use in rain or snow.
- » Make sure lid of feeding hopper are well covered when use Sparkular mini. Accidentally Burning of Composite Ti can only use sands to extinguish. Composite Ti should keep away from moisture and stored in a dry sealed environment.
- » Keep audience and flammable material at a minimum distance of 3m from SPARKULAR mini. Make sure sparks shoot out from Sparkular mini can NOT touch any objects.
- » Clear material for Sparkular mini is necessary both before the show and after the show, to clear the Composite Ti remains in the pipe. Check whether there are Composite Ti aggregate in the nozzle after each show, if any, please clean it up, or it will affect the shooting effect or even damage Sparkular mini.
- » The Sparkular mini power supply cable (sparkular mini power supply EX-cable) maximum allowed cascade for Sparkular mini is 6pcs(BT06)/3pcs(BT07), exceed connecting may result in damage or even cause fire.
- » For better heat dissipation, block the air intake and air outlet is prohibited.
- » Cover of nozzle of Sparkular mini is prohibited.

Description

Model	BT06/BT07
Dimension	168x180x228mm
Weight	4.5kg
Input	AC 220V 50/60Hz (BT06) AC 110V 50/60Hz (BT07)
Work Power	380W
Work Temp.	-10℃ ~ 50℃
Casing	Anti-flaming ABS
Fountain Height	2.0m~3.5m, Depend on different type of composite Ti
Interface	Double DMX input interfaces, double AC power interfaces

Advantages :

- » Integrating wireless technology, Not exposed, anti-collision.
- » One button start.
- » Tilt protection function. More secure.
- » Sophisticated design, light weighted and portable.





SPARKULAR mini USER MANUAL

V1.0



Showven Technologies Co.,Ltd.



Tomball Fire Rescue
Fire Prevention Division
 1200 Rudel Rd.
 Tomball, TX
 281-351-7101



Business Name: ROAR Over Texas, Inc.
 Business Address: 9734 Tucker Cypress Dr. Houston, TX 77095
 Person Responsible: Oscar Lopez
 Business Phone: 832 427 6194 Date: 06/20/2024
 E-Mail Address: admin@roarover texas.com

Annual Operational Permit Application

Type of Permit		Amount	X	Reason for Permit
1	Aerosol Products	\$100.00		To manufacture, store or handle
2	Amusement Buildings	\$100.00		To operate
3	Aviation Facility	\$150.00		Aircraft servicing or repair of
4	Carnivals and Fairs	\$150.00		To conduct
5	Cellulose Nitrate Film	\$100.00		To store, handle or use
6	Combustible Dust Products	\$100.00		To operate a facility that creates combustible dust
7	Combustible Fibers	\$125.00		To store, handle in quantities greater than 100 cubic feet.
8	Compressed Gases	\$100.00		To store, operate or use
9	Covered Mall Buildings	\$50.00		For salable goods inside covered mall buildings
10	Cryogenic Fluids	\$100.00		To produce, store, or transport
11	Cutting and Welding	\$75.00		To conduct cutting and welding operations
12	Dry Cleaning Plants	\$100.00		To engage in the business of
13	Exhibits and Trade Show	\$75.00		To operate
14	Small arms & Explosives, including Fireworks	\$150.00		For the manufacture, storage, sale or use of
16	Flammable and Combustible Liquids	\$75.00		To store, handle or use Class I liquids in accordance with the IFC 2015
17	Floor Finishing (including bowling lanes)	\$100.00		To finish or surface over 350 sq. ft.
19	Fumigation & Insecticide Fogging	\$50.00		To operate a business of fumigation
20	Hazardous Materials	\$150.00		To store, transport on site, use or handle
21	HPM Facilities	\$150.00		To Store, handle or use hazardous production materials
22	High Piled Storage	\$75.00		For storage within a building exceeding 500 sq. ft. over 12ft.
23	Hot Work Operations	\$75.00		Welding, cutting or roofing operations
24	Industrial Ovens	\$100.00		To operate
25	Lumber Yards and Wood Working Plants	\$100.00		To store or process amounts exceeding 100, 000 board beet
26	Liquid or Gas Fueled Vehicles in Group "A"	\$100.00		To operate, display or demonstrate in a Group A occupancy
27	LP-Gas	\$100.00		To store or use and the operation of tankers that transport LP Gas
28	Magnesium Working	\$150.00		To melt, cast, heat treat or grind
29	Miscellaneous Combustible Storage	\$100.00		To store in excess of 2500 cu. ft. combustible packing material, boxes, crates, barrels, tires, cork or similar combustible material
30	Open Burning (Commercial-Trench)	\$150.00		To Operate
32	Open Flames and Candles	\$50.00		To operate in connection with assembly occupancies
33	Organic Coatings	\$100.00		Producing more than one (1) gallon a day
34a	Places of Assembly 50-100	\$75.00		To operate with occupancy of 50-100 persons
34b	Places of Assembly 101-299	\$100.00		To operate with occupancy of 101-299 persons
34c	Places of Assembly 300 or more	\$125.00		To operate with occupancy of 299 or more persons
36	Pyrotechnic (special effects material)	\$150.00	x	To use
39a	Repair Garage	\$100.00		To operate
39b	Motor Vehicle Fuel Dispensing	\$100.00		To operate fuel tank or station
40	Rooftop Heliports	\$150.00		To operate
41	Spray or Dipping	\$150.00		To conduct
42	Tire Storage	\$100.00		To establish, conduct, maintain storage that exceeds 2500 cu.ft.
43	Temporary Structures, Tents & Canopies	\$75.00		To operate Tent over 200 sq. ft. or Canopy over 400 sq. ft.
46	Wood Products	\$100.00		To store chips, hogged material lumber or plywood in excess of 200 cu. ft.
50	Water Flow Test – Fire Hydrant	\$150.00		To flow water from fire hydrant for flow calculations

Mail or Drop this completed application to: Fire Prevention Division – 1200 Rudel Rd. - Tomball, TX 77375

I understand that the permit I have applied for may be revoked at any time for violation of the terms and conditions under which it is granted, or for any violation of the City of Tomball Fire Codes and Ordinances pertaining thereto. I also understand that this permit must be posted at the location indicated as the permitted premises.

Signature of Applicant O Lopez

Total \$ 150.00

Details of Event

Date: 07/14/2024	Time: 7:15-7:25pm- special dances
Operator: Frank Caamano 281-744-9882	Display Type: Indoor Cold Spark

Details of pyrotechnics: Sparkular Mini

- Indoor / Outdoor usage
- Very low smoke, dissipates fast
- Sparkular effect from granules
- No smell from pyro
- Easy set up multiple locations
- Height 2-3 meters

Sparkular Mini Specifications:

- Effect height: 2 to 3 meters
- Size: 7 x 7 x 9 inches
- Weight: 10lbs
- Power supply: 100-120VAC

Video Demo: <https://youtu.be/-i5IQK76NS0>

50/60Hz

- Spark direction: Vertical
- Work Power: 400W
- Work Temp: -10-50 degrees C
- Interface: Double DMX input,

Double AC power

- Control Mode: Remote control, Host control, DMX
- Fuel: Granules

Safety Info:

- Safety Personnel on site will be certified firefighters with pressurized water cannons at all sides of display at a safe distance. **see site plan for reference.
- No go for winds above 15 MPH towards spectators.
- X4 water cannons with class a foam/water mixture and x2 dry chem fire extinguishers on site.
- In the event of a fire SHOW MUST BE STOPPED and evaluated by safety personnel to determine if more resources needed. Once fire is put out and confirmed safe then show can resume. Pyrotechnic operator must visually and verbally verify with safety personnel to confirm safety before resuming the show.

**FIREWORKS SPECIAL EFFECTS OPERATOR'S LICENSE
TEXAS DEPARTMENT OF INSURANCE
STATE FIRE MARSHAL'S OFFICE**

Issued To:
Caamano, Frank Xavier

License Number
FEO-3075520
Effective Date:09-29-2023
Expiration Date: 09-29-2024

This will serve as your proof of licensure with the State Fire Marshal's Office.

To receive news and updates from the SFMO concerning fire industry licensing, sign up for the SFMO Licensing eNews updates [on our website.](#)



DRAYTON INSURANCE BROKERS, INC.

2500 CENTER POINT ROAD, SUITE 301
BIRMINGHAM, ALABAMA 35215
PHONE: (205) 854-5806
FAX: (205) 854-5899

POST OFFICE BOX 94067
BIRMINGHAM, ALABAMA 35220
EMAIL: dib@draytonins.com

CERTIFICATE OF INSURANCE

NO. 460801

We certify that insurance is afforded as stated below. This Certificate does not affirmatively or negatively amend, extend or alter the coverage afforded by the insurance policy and the insurance afforded is subject to all the terms, exclusions and conditions of the policy.

INSURER Admiral Insurance Company **POLICY NO.** CA000003209-34-1152

NAMED INSURED Roar Over Texas, Inc.
9734 Tucker Cypress Drive
Houston, Texas 77095

POLICY TERM May 8, 2024 to May 8, 2025; Both Days 12:01 A.M. Standard Time

COVERAGE Fireworks Display Contractors Liability: Occurrence Basis Claims Made Basis

LIMIT OF LIABILITY \$ 1,000,000 each occurrence, \$ 2,000,000 general aggregate
The limit of liability shall not be increased by the inclusion of more than one insured or additional insured.

RESTRICTION This policy applies only to displays which comprise solely Class "C" Fireworks (Explosives Classification 1.4), pyrotechnics special effects (including indoor pyrotechnics), propane, open flame effects, lasers and other non-pyrotechnic special effects. Excluding the use of Class "B" fireworks (Explosives Classification 1.3).

INSURED OPERATIONS Public fireworks display and special effects contractor

It is certified that, if named below, this policy includes as Additional Insureds 1) the sponsor(s), promoter(s), organizer(s) (including other entities having similar interests), of insured pyrotechnic events and/or 2) the owner(s) of real property (or barges) at which insured pyrotechnic events are held and/or 3) the owner(s), manager(s), tenant(s), mortgagee(s) (including other entities having similar interests), of buildings, stadiums, arenas and similar facilities at which insured pyrotechnic events are held and/or 4) the licensing or permitting authority, or other authority having jurisdiction, issuing licenses/permits for insured pyrotechnic events and/or 5) any other entity for which the insurance is required to be afforded under written contract. Coverage applies only as respects the legal liability of such Additional Insured(s) for bodily injury and property damage caused by the operations of the Named Insured. The insurance afforded any Additional Insured does not include coverage for any bodily injury or property damage arising from the failure of such Additional Insured to fulfill its obligations specified in its contract with the Named Insured.

**NAME(S) OF
ADDITIONAL INSURED(S)**

Boxwood Manor

DISPLAY LOCATION

945 E Hufsmith Rd,
Tomball, TX 77375

DISPLAY DATE(S)

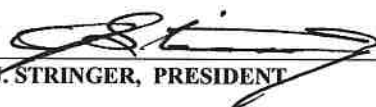
07/14/2024

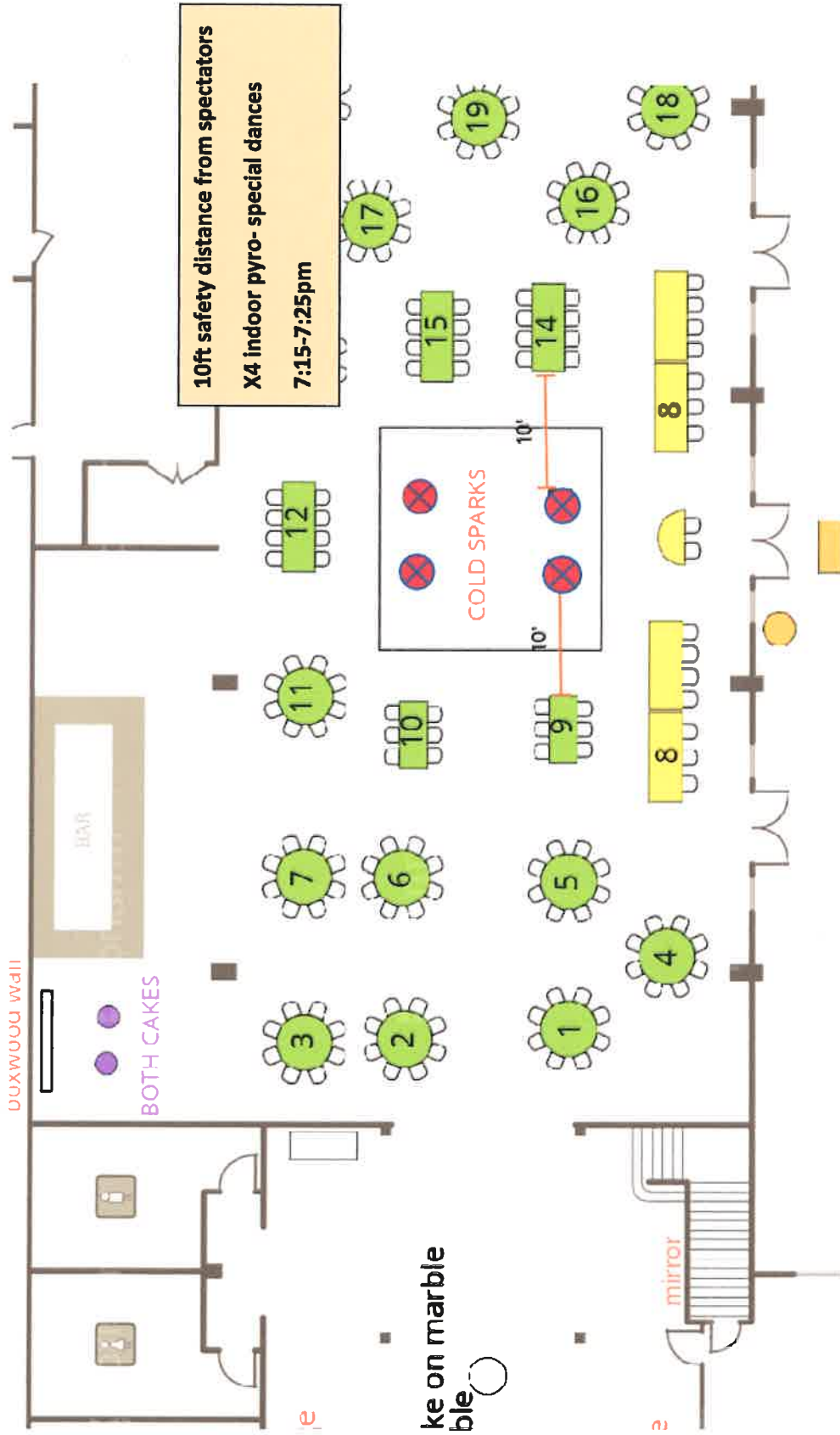
It is certified that this policy requires a 30 day mutual notice of cancellation between the Insurer and the Named Insured. In the event of such cancellation we will endeavor to mail 10 days written notice to the Additional Insured(s), whose name and address is shown hereon, but failure to mail such notice shall impose no obligation or liability of any kind upon the insurer and/or the undersigned.

DRAYTON INSURANCE BROKERS, INC.

06/11/2024

DATE OF ISSUE


A.J. STRINGER, PRESIDENT



Boxwood Manor

July 14, 2024

Aisle Dimensions- 15 ft wide

6 ft height cold spark



Safety Data Sheet
According to Regulation (EC) No 1907/2006, Annex II,
Amended by COMMISSION REGULATION (EU) 2015/830,
According to REGULATION (EC) No 1272/2008
Composite Ti for Stage Effect

Version 1.0

Issue date: 26-09-2018

Revision date: 26-09-2018

SDS Record Number: C555-TCO-010-129090

Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier:

Identification on the label/Trade name: Composite Ti for Stage Effect
 Additional identification: Not available
 Identification of the product: See section 3
 Index Number: See section 3
 REACH registration No.: See section 3

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

1.2.1 Identified uses:

A kind of consumables of the deductive equipment

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): -
 Supplier(Manufacturer): Showven Technologies Co., Ltd.
 Address: Building B1, Changsha E-Center, No. 18 Xiangtai Road, Liuyang Economic Development Zone, Hunan, China.
 Contact person(E-mail): solulm@qq.com
 Telephone: +86-13319585521
 Fax: -

1.4 Emergency telephone Number:

+86-731-83833068

Available outside office hours? YES NO

Section 2 Hazards Identification

2.1 Classification of the substance or mixture:

2.1.1 Classification:

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard codes
N/A	N/A

2.2 label elements:

Hazard Pictograms: No hazard pictogram is used.
Signal Word(S): No signal word is used.
Hazard Statement: Not applicable.
Precautionary statement: Not applicable.

2.3 Other hazards:

Not available.

Section 3 Composition/information on ingredients

Substance/Mixture:

Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration	Classification
Titanium	N/A	7440-32-6	231-142-3	75%	Not Classified
Zirconium	N/A	7440-67-7	231-176-9	20%	H250 H260
Titanium dioxide	N/A	13463-67-7	236-675-5	≤5%	Not Classified

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe.

4.1.2 In case of skin contact:

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

4.1.3 In case of eyes contact:

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Get medical attention.

4.1.4 In case of ingestion:

Drink enough warm water to emetic. Get medical attention.

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

The product is not classified as harmful to human health effect.

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

Symptomatic treatment.

Section 5 Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media:

Sand.

Unsuitable extinguishing media:

Dry powder fire extinguisher, water, carbon dioxide, and foam air extinguisher

5.2 Special hazards arising from the substance or mixture

The material could be burned when contact with open fire and high heat and it could also be burned in carbon dioxide and nitrogen gas. Harmful combustion product: Zirconium oxides, Titanium oxides

5.3 Advice for firefighters:

Wear self-contained breathing apparatus for fire-fighting if necessary.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Isolation of contaminated areas, restrictions on access. Cut off the fire source. Recommended emergency personnel wear self-positive pressure respirator, wear ordinary work clothes.

- 6.1.2 For emergency responders:** Avoid skin and eye contact. Refer to section 8 of SDS for personal protection details.
- 6.2 Environmental Precautions:** Avoid disposing into drainage/sewer system or directly into the aquatic environment.
- 6.3 Methods and material for Containment and Cleaning up:** A small amount of leakage: use non-sparking tools to collect, dry and clean the material and storage in container with cap for recovery. A large number of leaks: covered with plastic sheeting or canvas. Use no spark tools to collect for recovery.
- 6.4 Reference to other sections:** See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

Section 7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Operator must undergo special training; strictly comply with the operating procedures. Recommend the operator to wear self-absorption filter dust masks, chemical safety glasses and chemical gloves. Workplace must be away from fire and heat source and staff no smoking. Ventilation systems and equipment must be explosion proof type. Avoid producing dust. Avoid contact with acids. Carry lightly and maintain complete packaging to prevent leakage. Fire-fighting equipment and leakage emergency treatment equipment need to be equipped with enough variety and quantity.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

For safety, store in a cool, ventilated warehouse. Warehouse must be away from fire and heat source. Packing seal. Should be stored separately with acids and avoid mixed storage. Ventilation systems and equipment must be explosion proof type. Mechanical equipment and tools must be no sparks. The storage area should be equipped with appropriate material to contain leakage.

7.3 Specific end use(s):

Not available.

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters:

8.1.1 Occupational exposure limits:

Country	Substance	EINECS No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		
				ppm	mg/ m3	ppm	mg/ m3	Notes
Ireland	Zirconium	231-176-9	7440-67-7	-	5	-	10	-
Ireland	Titanium dioxide total inhalable dust respirable dust	236-675-5	13463-67-7	-	10	-	-	-
				-	4	-	-	-

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Value: Not available.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls:

Generally don't need special protection, but need to prevent smoke and dust hazards.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection:

When dust concentration exceeds the standard, wear chemical safety glasses.

Hand protection:	Wear chemical gloves.
Body protection:	Wear general protective clothing.
Respiratory protection:	When dust concentration exceeds the standard, it is recommended to wear self-absorption filter dust masks.
Thermal hazards:	Wear suitable protective clothing to prevent heat.
8.2.3 Environmental exposure controls:	Avoid discharge into the environment. Dispose of rinse water in accordance with local and national regulations

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:	Solid
Colour:	Ash black
Odour:	Odorless
Odour threshold:	Not available
pH:	Not available
Melting point/range (°C):	1 668 °C (Titanium CAS# 7440-32-6)
Boiling point/range (°C):	3 287 °C (Titanium CAS# 7440-32-6)
Flash point (°C):	Not available
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower explosive limits:	Not available
Vapour pressure (20°C):	Not available
Vapour density:	Not available
Relative Density:	5.7
Bulk density (kg/m³):	Not available
Water solubility (g/l):	insoluble in water
n-Octanol/Water (log Po/w):	Not available
Auto-ignition temperature:	> 406 °C (Titanium CAS# 7440-32-6)
Decomposition temperature:	Not available
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Not available
Oxidising properties:	Not available

9.2. Other information:

Fat solubility(solvent– oil to be specified) etc:	Soluble in hot concentrated acid, hydrofluoric acid, sulfuric acid and aqua regia.
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available

Section 10 Stability and reactivity

10.1 Reactivity:	The substance is stable under normal storage and handling conditions.
10.2 Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
10.3 Possibility of hazardous reactions:	No dangerous reactions known.

10.4 Conditions to avoid:	Incompatible materials. Avoid heat, air, moisture and compression.
10.5 Incompatible materials:	Acid, oxygen and lead
10.6 Hazardous decomposition products:	ZrO ₂ , TiO ₂

Section 11 Toxicological information

11.1 Information on toxicological effects:

Acute toxicity:	
ATE _{max} (oral):	Not available
ATE _{max} (Inhalation):	Not available
ATE _{max} (Dermal):	Not available
Titanium (CAS# 7440-32-6)	
LD50(Oral, Rat):	> 5 000 mg/kg bw
LD50(Dermal, Rabbit):	Not available
LC50(Inhalation, Rat):	Not available
Skin corrosion/irritation:	Not classified
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

Section 12 Ecological information

12.1 Toxicity:

Titanium (CAS# 7440-32-6)	
Acute (short-term) toxicity:	
LC50(96h, Fish):	> 10 000 mg/L
LC50(48h, Crustacea):	> 10 000 mg/L
EC50(72h, Algae/aquatic plants):	61 mg/L
Chronic (long-term) toxicity:	
NOEC(Fish):	Not available
NOEC(Crustacea):	Not available
EC50(Algae/aquatic plants):	Not available
12.2 Persistence and degradability:	Not available.
12.3 Bioaccumulative potential:	Not available.
12.4 Mobility in soil:	Not available.
12.5 Results of PBT and vPvB assessment:	Not available.
12.6 Other adverse effects:	Not available.

Section 13 Disposal considerations

13.1 Waste treatment methods:	The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.
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Section 14 Transport Information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	Not regulated	Not regulated	Not regulated	Not regulated
UN Proper shipping name	Not regulated	Not regulated	Not regulated	Not regulated
Transport hazard Class(es)	Not regulated	Not regulated	Not regulated	Not regulated
Packing group	Not regulated	Not regulated	Not regulated	Not regulated
Environmental hazards	No	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of Marpol and the IBC Code	Not regulated	Not regulated	Not regulated	Not regulated

Section 15 Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

Relevant information regarding authorization: Not applicable.

Relevant information regarding restriction: Not applicable.

Other EU regulations: Employment restrictions concerning young person must be observed.
For use only by technically qualified individuals.

Other National regulations: Not applicable

15.2 Chemical safety assessment YES NO **Section 16 Other information****16.1 Indication of changes:**

Version 1.0 Amended by (EU) 2015/830

16.2 Abbreviations and acronyms:

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

RID: Regulation for rail International transportation of Dangerous goods

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response.

NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

16.3 Key literature references and sources for data

ECHA Registered substances data

16.4 Training instructions:

Not applicable.

16.5 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.6 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make