

Risk Assessment/Safe Work Method Statement

Sparkular Fountains



1. Middleton Events Sparkler Risk Assessment

An introduction:

The event safety management system is a document that communicates the values, objectives and broad commitments of the event organiser to conducting a safe event. It represents a high-level commitment by the event organiser that sets the tone for how, and to what degree, the system for managing safety will be supported. Major events play an important role in Australian culture.

Success is often defined in terms of the spectacle, economic benefit and crowd numbers. Success, however, should also be measured by each event's level of safety. When attending major events, the community has an expectation that they do so without risk of injury and that the event host has systems to ensure their safety.

This document provides practical information to major event organisers, venue owners and suppliers about Gig Central Pty. Ltd. Trading as Middleton Events management of safety risks and meeting their duty of care through integrated event safety planning.

Duty of Care

Event organisers have a duty of care under the Occupational Health and Safety Act 2011 (the OHS Act) to provide a safe operational environment. Under this legislation, Gig Central Pty. Ltd. must ensure so far as reasonably practicable that:

- People are not exposed to unnecessary risks arising from the operation of special effects.
- Any place where the community, employees and self-employed persons work is safe.

Proactive attention by Gig Central Pty. Ltd. is achieved by a process of identification, assessment and control of safety risks.

2. Event Details

The Middleton Events representative will start by documenting the following;

- What type of event
- You or your Clients Event
- Where: Your Venue

Define Event and Operation

Define the event phases. Major events typically have distinct phases, including:

- Bump-in and bump out times: As outlined in the Banquet Event Order
- Event operations set up will occur prior to event to minimise disruptions to event. Pack up occurs
- Firing shall occur at the specified time
- Sparkular is a non-pyrotechnic product with no combustible materials fired

3. Work Group Meeting

All Pyrotechnic staff will be taken through relevant emergency procedures prior to the event. A tool box/ group meeting check list is used to cover off any important issues including the emergency procedure in the event of an incident.

Toolbox/Work Group Meeting

Meeting held at: _____ Date: _____ Meeting conducted by: John Middleton

Signed: _____

Issues to be covered:

1. Weather Check (Wind/Cloud/Rain/Other) _____
2. Run through Checklists _____
3. Emergency Procedure _____
4. _____
5. _____

Other issues addressed:

1. _____
2. _____

Action Required:

Action	By Whom	Timeframe

Attendance (all participants to print name and sign):

1. _____ Signed: _____
2. _____ Signed: _____
3. _____ Signed: _____

4. MIDDLETON EVENTS GENERAL PROCEDURES:

The following procedures are followed from ordering to post show shut down; however additional procedures can be added at the end of the document for site specific requirements. Once initial site assessments and all notifications have been sent, we will then begin ordering the fireworks.

The following takes place:

- Delivery of Sparkular normally takes place on day of events at an arranged at a time that suit the operator and client
- The Sparkular will be wired up to the electronic system and then the site will be re checked and made ready for firing. All cables with by taped down or cables covers in place to reduce any risk for trip hazard.
- During the show only, the operator will fire the Sparkular system.
- Once show is completed the any debris is checked and cleared the machines are removed.
- Any remaining debris is vacuumed and taken offsite for disposal. Venue is to be left in the same condition prior to bump in.

5. RISK MANAGEMENT CHECKLIST: ALL VENUES

This checklist is intended to be used for checking and assessing potential hazards associated with special effects and Sparkular at events.

<i>This checklist was commenced on 12/2/2018 by John Middleton, Middleton Events Director</i>								
What potential risks have you identified?	Date of Assessment	Likelihood A, B, C, D, E	Consequence A, B, C, D, E	Risk Rating H,M,L (see risk chart)	What action should we do about it?	Risk Rating After Action	When will it be done?	Completed (signed off)
Event management								
Do you have any required permits?	12/7/2018	N/A		L	Not required as Worksafe has advised it a non-pyrotechnic device.	L	12/7/2018	Yes

Ensure you have all appropriate documentation, such as the event plan, program, and emergency plan and evacuation plan	12/7/2018	D	B	M	Approval from building owner obtained, Evacuation Plan obtained and included in this document	L	12/7/2018	Yes
What potential risks have you identified?	Date of Assessment	Likelihood A, B, C, D, E	Consequence A, B, C, D, E	Risk Rating H,M,L (see risk chart)	What action should we do about it?	Risk Rating After Action	When will it be done?	Completed (signed off)
Ensure current public liability insurance	12/7/2018	D	A	H	Middleton Events carries 30 Million dollars in public liability	L	12/7/2018	Yes
Ensure all communication equipment has been checked	12/2/2018	D	C	L	All electronic equipment is checked prior and rechecked at the event to ensure its working. All machines are tested and tag monthly.	L	12/2/2018	Yes
Guest/Venue Staff tripping over Sparkular or cables.	12/2/2018	C	C	L	Sparkular will only be put out to be used a few minutes before it is required. At this time staff will be nearby to make sure anyone walking past is made aware of any trip hazards. If any cables are	L	12/2/2018	Yes

					being used they will be tape down securely.			
Guest/Venue Staff touching the machine or trying to activate machine	12/2/2018	E	C	L	Sparkular is controlled by remote which is only held by Middleton Events Staff. No guest or venue staff are permitted to touch or adjust machines this is handled by Middleton Events Staff only.	L	12/2/2018	Yes
What potential risks have you identified?	Date of Assessment	Likelihood A, B, C, D, E	Consequence A, B, C, D, E	Risk Rating H,M,L (see risk chart)	What action should we do about it?	Risk Rating After Action	When will it be done?	Completed (signed off)
Guest or Venue Staff are too close to machine before	12/2/2018	D	C	L	Middleton Events Staff will not fire the machine unless staff or guest are at least 1 metre away.	L	12/2/2018	Yes
Firing					Middleton Events Staff will try to clear area if unable to do so that machines will be removed back into the storage box.			

Guest of Venue Staff move too close to machine while being fired.	12/2/2018	D	C	L	Middleton Events Staff will immediately cease firing. Middleton Events Staff will try to clear area if unable to do so that machines will be removed back into the storage box.	L	12/2/2018	Yes
Safety Procedures								
Sparkular Machines or Sparkular powder catches on fire.	12/2/2018	D	C	L	Sparkular is RCM approved and certified it has in built heat protection to stop it from reaching dangerous temperature. Sparkular powder is non-flammable. In case of fire Middleton Events Staff carry fire extinguisher on board, we also identify the venue fire extinguisher.	L	12/2/2018	Yes
Sparkular Powder	12/2/2018	D	C	L	Sparkular is non-pyrotechnic a MSDS is attached to this document with all related information.	L	12/2/2018	Yes

CONSEQUENCE

RATING		A	B	C	D	E
		Frequent	Probable	Occasional	Remote	Improbable
A	Catastrophic	High	High	High	High	High
B	Critical	High	High	High	Medium	Low
C	Marginal	High	Medium	Medium	Low	Low

6. EVACUTAION PLAN

Please see venue evacuation plan.

7. ENVIRONMENTAL HAZARDS

Sparkular is a Non-pyrotechnic product with no Hazardous fallout or materials this material has been tested by CSIRO.

8. STORAGE AND TRANSPORT

Sparkular will be handled by staff only and to be transported in their vehicles.

9. SAFE HANDLING PROCEDURES

- All Sparkular articles are to be handled by Middleton Events staff only
- Sparkular will only be fired if it is safe to do so, if there are any risks identified then staff members will terminate the Sparkular display no matter what the circumstances.
- Once Sparkular have been fired a visual inspection of the article will be conducted to ensure a quick clean, pack is achieved

- An inventory of Sparkular products must be accounted for following the display and prior to departure from the sit

10. MATERIAL DATA SAFETY SHEET

Document Type	Technical Document	Security Classification	Confidential
Document No.		P. Code	
Print Requirement	Color <input type="checkbox"/> Black <input checked="" type="checkbox"/>		

Material Safety Data Sheet of Composite Ti for Stage effect HC8600

Reference Document(s)

Document No.	Description

MATERIAL DATA SAFETY SHEET

Composite Ti for Stage Effect

- SECTION 1: Identification of the substance and of the company
- SECTION 2: Composition/information on ingredients
- SECTION 3: Hazards identification
- SECTION 4: First aid measures
- SECTION 5: Firefighting measures
- SECTION 6: Accidental release measures
- SECTION 7: Handling and storage
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 10: Stability and reactivity
- SECTION 11: Toxicological information

- SECTION 12: Ecological information
- SECTION 13: Disposal considerations
- SECTION 14: Transport information
- SECTION 15: Regulatory information
- SECTION 16: Other information

SECTION 1: Identification of the substance and of the company

Product name	Composite Ti for Stage Effect HC8600	
Manufacturer	Name	Liuyang Xiaowen Electronic Technologies Co., Ltd.
	Address	ZIP Code : 410300
	Tel	+86-731-83833068
	Fax	+86-731-83833069
	ZIP No.	410300
	E-mail	info@sparkular.com.au

Emergency telephone number Australia	+ 1300 854197
Sales Office Australia	1300 854 197

Section 2: Composition/information on ingredients

Pure

Admixture

Composition:

Chemical name	In % by weight	CAS No.	Dimension	Molecular Formula
Zirconium (Zr)	60	7440-67-7	200~250um	Zr
Titanium (Ti)	35	7440-32-6		Ti
titanium dioxide	≤5	13463-67-7	-	TiO ₂

Abbreviation: CAS No. is chemical Abstract Service Registry Number.

Section 3: Hazards identification

Fatalness grade	The Object is not divided into dangerous article.
Invasion Route	Inhalation.
Health hazards	There is no report of the material in industry.
Environmental hazards	No known significant effects or critical hazards.
Burn & burst danger	The object isn't easy to burn.

Section 4: First aid measures

Skin contact	Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Get medical attention.
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.
Ingestion	Drink enough warm water to emetic. Get medical

	attention.
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Section 5: Firefighting measures

Hazard characteristics	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
Suitable extinguishing media	Sand.

Unsuitable extinguishing media	Dry powder fire extinguisher, water, carbon dioxide, and foam air extinguisher
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Section 6: Accidental release measures

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

Section 7: Handling and storage

Precaution for safe handling	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
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	<p>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. Firefighting equipment and leakage emergency treatment</p> <p>equipment need to be equipped with enough variety and quantity.</p>
Conditions for safe storage	<p>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.</p> <p>The storage area should be equipped with appropriate material to contain leakage.</p>

Section 8: Exposure controls/personal protection

MAC (mg/m ₃)	No data
Monitoring method	Two xylenol orange colorimetry
Engineering control	Generally, don't need special protection, but need to prevent smoke and dust hazards.
Respiratory protection	When dust concentration exceeds the standard, it is recommended to wear self - absorption filter dust masks.
Eye protection	When dust concentration exceeds the standard, wear chemical safety glasses.
Body protection	Wear general protective clothing.
Hand protection	Wear chemical gloves.
Other protection	

Section 9: Physical and chemical properties

Appearance and properties: Grey white grain	PH : N/A
Melting point(°C): N/A	Boiling point(°C): N/A
Relative density (water =1): 5.7	Relative vapor density (air =1): N/A
Saturated vapor pressure (kPa):no data	Combustion heat (kJ/mol): N/A
Critical temperature (°C): N/A	Critical pressure (mPa): N/A
Ignition temperature (°C): N/A	Flash point (°C): N/A
Upper explosion limit (V/V): N/A	Lower explosion limit (V/V): N/A
Octanol / water partition coefficient of value: N/A	
Solubility: insoluble in water, soluble in hot concentrated acid, hydrofluoric acid, sulfuric acid and aqua regia.	

Uses: used in corrosion resistant alloy, flash, fireworks, etc., also used as metallurgical oxygen, chemical reagent and so on.

Other physical and chemical properties: N/A

Section 10: Stability and reactivity

Stability	stable
Forbidden complex	Acid, oxygen and lead
Conditions to avoid	No Heat, no air, no moisture and no compression
Polymerization hazard	Can't happen
Decomposition product	ZrO ₂ , TiO ₂

Section 11: Toxicological information

Acute toxicity	Not available
Acute poisoning	Not available
Chronic poisoning	Not available
Irritation	Not available
Sub-acute and chronic toxicity	Not available
Mutagenicity	Not available
Teratogenicity	Not available
Carcinogenicity	Not available

Section 12: Ecological information

Eco toxicity	No data available
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Biodegradability	No data available
Non-biological degradation	No data available
Biological accumulation	No data available

Section 13: Disposal considerations

Property of waste	No meaning
Waste disposal method	Recycling use

Section 14: Transport information

Dangerous goods No.	-
UN No.	-

Packing mark	No Fire, Prevent Sunlight and Raining
Packaging category	Ordinary packing
Packing method	Vacuum packaging through aluminium foil bag
Transportation note	Firefighting equipment and leakage emergency treatment equipment should be equipped enough during transportation. Vehicle exhaust pipe of this car must have fire resistance device. To ensure that the container does not leak, fall and damage during transportation. Prevent insolation, rain and high temperature during transportation. Should stay away from the fire, heat source when stop over. Railway transportation must prohibit humping.

SECTION 15: Regulatory information

Dangerous chemicals safety management regulations (344 decree of the State Council, March 15, 2002), workplace safety use chemical regulations (423 decree of the labor department, 1996) and other laws and regulations provide the safe use, production, storage, transportation, loading and unloading of hazard chemicals.

SECTION 16: Other information

Reference	
Filling time	Dec 1, 2016
Filling Department	Technology Department
Data audit department	Chief engineer office
Modification Description	Flammability of the material relates to size. The smaller the size, the easier to burn. The size of 200-250um of the industrial grade is not quite easy to burn.
Other information	

