

# Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 01/06/2017

Revision: 01/06/2017

## 1 Identification

### Product identifier

· **Trade name:**

Fireworks, Division 1.1 Explosive

· **Product code:**

Fireworks, Display  
Fireworks, 1.1G UN0333

· **Recommended use and restriction on use**

· **Recommended use:** Explosive product for professional use for entertainment and technical purposes

· **Restrictions on use:** Contact manufacturer/supplier

· **Details of the supplier of the Safety Data Sheet**

· **Manufacturer/Supplier:**

STARFIRE CORPORATION  
682 COLE ROAD  
CARROLLTOWN, PA

· **Emergency telephone number:**

ChemTel Inc.  
(800)255-3924, +1 (813)248-0585

## 2 Hazard(s) identification

· **Classification of the substance or mixture**

Expl. 1.1 H201 Explosive; mass explosion hazard.

· **Label elements**

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**



GHS01

· **Signal word:** Danger

· **Hazard statements:**

H201 Explosive; mass explosion hazard.

· **Precautionary statements:**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P250 Do not subject to grinding/shock/friction.

P280 Wear protective gloves/protective clothing/eye protection.

P373 DO NOT fight fire when fire reaches explosives.

P370+P380 In case of fire: Evacuate area.

P372 Explosion risk in case of fire.

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P401 Store in accordance with local/regional/national/international regulations.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

· **Explosive Product Notice**

**PREVENTION OF ACCIDENTS IN THE USE OF EXPLOSIVES** - The prevention of accidents in the use of explosives is a result of careful planning and observance of the best known practices. The explosives user must remember that he is dealing with a powerful force and that various devices and methods have been developed to assist him in directing this force. He should realize that this force, if misdirected, may either kill or injure both him and his fellow workers.

**WARNING** - All explosives are dangerous and must be carefully handled and used following approved safety procedures either by or under the direction of competent, experienced persons in accordance with all applicable federal, state, and local laws, regulations, or ordinances. If you have any questions or doubts as to how to use any explosive product, **DO NOT USE IT** before consulting with your supervisor, or the manufacturer, if you do not have a supervisor. If your supervisor has any questions or doubts, he should consult the manufacturer before use.

### 3 Composition/information on ingredients

· **Chemical characterization:** Mixtures

· **Components:**

Components for product possessing only physical hazards do not require reporting. These components are considered proprietary.

### 4 First-aid measures

· **Description of first aid measures**

· **General information:**

Information is only applicable to product contents, and not to product as normally supplied. This information is applicable to damaged, leaking, or spilled product as contact with contents is possible under these conditions.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Wash with soap and water.

In case of minor burns, flush with cool water.

If skin irritation is experienced, consult a doctor.

· **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Unlikely route of exposure.

Do not induce vomiting; immediately call for medical help.

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- **Most important symptoms and effects, both acute and delayed:**  
Blast injury if mishandled.  
Thermal burns, if mishandled.
- **Danger:** Danger of blast or crush-type injuries.
- **Indication of any immediate medical attention and special treatment needed:**  
Product may produce physical injury if mishandled. Treatment of these injuries should be based on the clinical presentation.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
DO NOT fight fire when fire reaches explosives.  
Flood area with water. If no water is available, carbon dioxide, dry chemical or earth may be used. If the fire reaches the cargo, withdraw and let fire burn.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**  
Explosive; mass explosion hazard.  
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information:**  
Eliminate all ignition sources if safe to do so.  
In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.  
Cool endangered receptacles with water spray.  
Flammability Classification: (defined by 29 CFR 1910.1200) Explosive. Can explode under fire conditions. Individual devices will randomly explode. Mass explosion of multiple devices is possible under certain conditions. Burning material may produce toxic and irritating vapors. In unusual cases, shrapnel may be thrown from exploding devices under containment. See 2012 Emergency response Guidebook for further information.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Remove persons from danger area.  
Ensure adequate ventilation.  
Isolate area and prevent access.
- **Environmental precautions**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Methods and material for containment and cleaning up**  
Pick up mechanically.

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Send for recovery or disposal in suitable receptacles.

· **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 disposal information.

### 7 Handling and storage

· **Handling**

· **Precautions for safe handling:**

Handle with care. Avoid jolting, friction and impact.

Restrict the quantity stored at the work place.

Keep out of reach of children.

· **Information about protection against explosions and fires:**

In case of fire: Evacuate area.

Explosion risk in case of fire.

Keep away from sparks and open flames. - No smoking.

Emergency cooling must be available in case of nearby fire.

· **Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and receptacles:**

Avoid storage near extreme heat, ignition sources or open flame.

· **Information about storage in one common storage facility:**

Store in accordance with local/regional/national/international regulations.

Store away from foodstuffs.

Store away from flammable substances.

· **Further information about storage conditions:**

Store in cool, dry conditions in well sealed receptacles.

Store locked up.

· **Specific end use(s)** No relevant information available.

### 8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

· **Engineering controls:** Provide adequate ventilation.

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- **Breathing equipment:** Not required under normal conditions of use.
- **Protection of hands:** When needed, wear gloves for protection against mechanical hazards.
- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:** When needed, wear protective clothing for protection against mechanical hazards.
- **Limitation and supervision of exposure into the environment**  
No relevant information available.
- **Risk management measures**  
Organizational measures should be in place for all activities involving this product.

### 9 Physical and chemical properties

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

##### · Appearance:

**Form:** Outer shell containing powder, granular, or solid materials.  
**Color:** According to product specification

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Melting point/Melting range:** Not determined.

· **Boiling point/Boiling range:** Not determined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Fire or projection hazard.

· **Auto-ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Heating may cause an explosion.

##### · Explosion limits

**Lower:** Not determined.

**Upper:** Not determined.

· **Vapor pressure:** Not applicable.

· **Density:** Not determined.

· **Relative density:** Not determined.

· **Vapor density:** Not applicable.

· **Evaporation rate:** Not applicable.

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- |   |                                    |
|---|------------------------------------|
| · <b>Solubility in / Miscibility with Water:</b>  | Insoluble.                         |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                    |
| · <b>Viscosity</b>                                |                                    |
| <b>Dynamic:</b>                                   | Not applicable.                    |
| <b>Kinematic:</b>                                 | Not applicable.                    |
| · <b>Other information</b>                        | No relevant information available. |

### 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:** Risk of explosion if heated under confinement.
- **Possibility of hazardous reactions**  
Explosive; mass explosion hazard.  
Toxic fumes may be released if heated above the decomposition point.  
Reacts with strong acids and alkali.
- **Conditions to avoid**  
Excessive heat.  
Sources of ignition: sparks, open flame, incompatible materials
- **Incompatible materials** Oxidizers, strong bases, strong acids
- **Hazardous decomposition products**  
Carbon monoxide and carbon dioxide  
Nitrogen oxides  
Sulfur oxides (SO<sub>x</sub>)

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:**  
Not a skin irritant in unused form. Vapors/particles from used product are possibly irritating to skin.
- **On the eye:**  
Not an eye irritant in unused form. Vapors/particles from used product are possibly irritating to eyes.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

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· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

· **Probable route(s) of exposure:**

Skin contact.

Eye contact.

Inhalation.

· **Acute effects (acute toxicity, irritation and corrosivity):**

Danger of blast or crush-type injuries.

Risk of thermal burns.

· **Repeated dose toxicity:** From product as supplied: None.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:** Based on available data, the classification criteria are not met.

· **Reproductive toxicity:** Based on available data, the classification criteria are not met.

· **STOT-single exposure:** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

### 12 Ecological information

· **Toxicity**

· **Aquatic toxicity** No relevant information available.

· **Persistence and degradability** No relevant information available.

· **Bioaccumulative potential:** May be accumulated in organism

· **Mobility in soil:** No relevant information available.

· **Other adverse effects** No relevant information available.

### 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Incinerate in accordance with local, state and federal regulations.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

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- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

· **UN-Number**  
 · **DOT, ADR, IMDG** UN0333  
 · **IATA** FORBIDDEN

· **UN proper shipping name**  
 · **DOT, ADR, IMDG** Fireworks  
 · **IATA** FORBIDDEN

· **Transport hazard class(es)**

· **DOT**



· **Class** 1.1  
 · **Label** 1.1G

· **ADR, IMDG**



· **Class** 1.1  
 · **Label** 1.1G

· **IATA**  
 · **Class** FORBIDDEN

· **Packing group**  
 · **DOT** II

· **Environmental hazards**  
 · **Marine pollutant:** No

· **Special precautions for user** Not applicable.  
 · **EMS Number:** F-B,S-X

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

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### 15 Regulatory information

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

- United States (USA)

- SARA

- Section 302 (extremely hazardous substances):

None of the ingredients are listed.

- Section 304 (emergency release notification):

None of the ingredients are listed.

- Section 355 (extremely hazardous substances):

None of the ingredients are listed.

- Section 313 (Specific toxic chemical listings):

Contact manufacturer.

- TSCA (Toxic Substances Control Act)

All ingredients are listed.

- Proposition 65 (California)

- Chemicals known to cause cancer:

Contact manufacturer.

- Chemicals known to cause reproductive toxicity for females:

Contact manufacturer.

- Chemicals known to cause reproductive toxicity for males:

Contact manufacturer.

- Chemicals known to cause developmental toxicity:

Contact manufacturer.

- Carcinogenic categories

- EPA (Environmental Protection Agency):

None of the ingredients are listed.

- IARC (International Agency for Research on Cancer):

Contact manufacturer.

- NIOSH-Ca (National Institute for Occupational Safety and Health):

Contact manufacturer.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Date of preparation / last revision 01/06/2017 / -

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**Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
LDLo: Lowest Lethal Dose Observed  
Expl. 1.1: Explosives – Division 1.1

**Sources**

Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))  
Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do))  
Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org))  
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6  
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.  
Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: [www.chemtelinc.com](http://www.chemtelinc.com)