

Product Firewire Initiators
Revision Date 02/11/2016
Revision 1



Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name	Firewire Initiators
Identifier Uses	No specific first aid measures noted.
Supplier	MJG Technologies Inc. 836 Camden Avenue Blackwood, NJ 08012 Tel: 856-228-6118
Contact Person	info@electricmatch.com
Emergency Telephone	1-352-323-3500 Contract # 100588

SECTION 2: HAZARDS IDENTIFICATION

Appearance	Solid. Medium brown colored bead of pyrotechnic composition on a copper-clad chip with two PVC insulated connecting wires of various lengths. Red or blue lacquer coating on igniter head.
Color	Medium brown colored.
Odor	No odour information available.

Pictogram(s)



Signal Word Danger

Hazard Statements

H204 Fire or projection hazard.
H302 Harmful if swallowed.
H332 Harmful if inhaled.
H351 Suspected of causing cancer .
H361 Suspected of damaging fertility or the unborn child .
H372 Causes damage to organs [*] through prolonged or repeated exposure [*].

Precautionary Statements

P201 Obtain special instructions before use.
P210 Keep away from heat/ sparks/open flames/hot surfaces. — No smoking.
P250 Do not subject to grinding/ shock/[*]/friction.
P260 Do not breathe dust/fume/ gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P281 Use personal protective equipment as required.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P334 Immerse in cool water/wrap in wet bandages.
P370 + P380 In case of fire: Evacuate area.

P373 DO NOT fight fire when fire reaches explosives.
 P374 Fight fire with normal precautions from a reasonable distance.
 P405 Store locked up.

Contains	orange lead
GHS Classification	
Physical and Chemical Hazards	Expl. 1.4 - H204
Human Health	Acute Tox 4 - H302, Acute Tox 4 - H332, Carc. 2 - H351, Repr. 2 - H361, STOT RE 1 - H372,
Environment	Not classified
OSHA Regulatory Status	This product is Hazardous under the OSHA Hazard communication Standard.
Inhalation	Inhalation of large amounts of igniter heads may cause respiratory discomfort.
Ingestion	Harmful if swallowed.
Skin contact	Thermal burns to the skin caused by accidental ignition of igniters. Not absorbed through the skin.
Eye contact	Thermal burns to the eyes caused by accidental ignition of igniters .
Routes of Exposure	No Information available.
Other Hazards	Not applicable.

SECTION 3: Composition/Information on Ingredients

Name	Product Identifier	GHS Classification	%
boron	CAS-No.: 7440-42-8 EC No.: 231-151-2		10-30%

Composition Comments Chemical names/ identifiers have been removed without affecting the overall safety information on the Safety Data Sheet.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General Information	CAUTION! First aid personnel must be aware of own risk during rescue! Remove victim immediately from source of exposure. Provide rest, warmth and fresh air. Burns must be treated by doctors. Place unconscious person on the side in the recovery position and ensure breathing can take place. If heart stops, heart-compression must be carried out. In case of accidents: Call an ambulance immediately! Show the MSDS.
Inhalation	If this product is inhaled and symptoms occur, move the exposed person to fresh air promptly. Seek medical attention if symptoms persist.
Ingestion	Get medical attention immediately. Do NOT induce vomiting. If victim is conscious and alert, wash out mouth with water then give water. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep airway clear.
Skin contact	Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning. Consult a doctor.
Eye contact	Do not rub eye. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse. Continue to rinse for at least 15 minutes.

Most important symptoms and effects, both acute and delayed

General Information	The severity of the symptoms described will vary dependant of the concentration and the length of exposure.
Inhalation	Inhalation of large amounts of igniter heads may cause respiratory discomfort.
Ingestion	Harmful if swallowed.
Skin contact	Thermal burns to the skin caused by accidental ignition of igniters. Not absorbed through the skin.
Eye contact	Thermal burns to the eyes caused by accidental ignition of igniters .
Routes of Exposure	No Information available.

Most important symptoms and effects, both acute and delayed

Notes To The Physician	Treat Symptomatically.
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SECTION 5: Firefighting Measures

Auto Ignition Temperature (°C)	No Information available.
Flammability Limit - Lower(%)	No Information available.
Flammability Limit - Upper(%)	No Information available.
Flash point	No Information available.
Extinguishing Media	Use fire-extinguishing media appropriate for surrounding materials.
Hazardous combustion products	Smoke contains Boron and Titanium.
Unusual Fire & Explosion Hazards	Burning igniters will project sparks several feet and can cause secondary fires. Igniters may rupture a container if ignited under confinement. Igniters may be ignited by extreme impact, friction or electrostatic discharge.
Special Fire Fighting Procedures	If possible, fight fire from protected position. Avoid breathing fire vapours. Keep up-wind to avoid fumes. Ventilate closed spaces before entering them. Containers close to fire should be removed immediately or cooled with water. Use water spray to cool container and prevent rupture.
Protective equipment for fire-fighters	Fire fighters should wear full protective equipment, including a self-contained breathing apparatus. Water should be used to cool surrounding containers.

SECTION 6: Accidental Release Measures

Personal Precautions	Use proper personal protection (refer to Section 8).
Environmental Precautions	Run off from fire control or dilution water may cause pollution. Keep out of drains, municipal sewers, open bodies of water and water course.
Spill Clean Up Methods	Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

SECTION 7: Handling and Storage

Handling	Read and follow manufacturer's recommendations. Do not handle broken packages without protective equipment. Avoid spilling, skin and eye contact. Do not use contact lenses. Keep away from heat, sparks and open flame. Take precautionary measures against static discharges when there is a risk of dust explosion.
Usage Description	Use only according to directions.
Storage Precautions	Store igniters in accordance with local, state and federal regulations. Keep dry and avoid temperatures above 120 degree F. Store in closed container away from incompatible materials, sunlight and heat to prolong shelf life. Minimize exposure in accordance with good hygiene practices. Keep out of reach of children. Keep away from food and drink. Containers opened must be resealed and kept upright. Do not store in unlabelled containers.
Specific End Use(s)	Igniter.

SECTION 8: Exposure Controls/Personal Protection**Protective Equipment****Ingredient Comments**

No occupational exposure limits noted for the ingredients(s).

Process Conditions
Engineering Measures
Respiratory Equipment
Hand Protection

Ensure that eye flushing systems and safety showers are located close to the working place. Provide adequate ventilation.
 If ventilation is inadequate use a suitable respirator.
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Due to risk of fire, leather footwear and cotton clothing should never be used. Long sleeved shirt, trousers, rubber boots, rubber gloves, and rubber apron.

Eye Protection

Use equipment for eye protection tested and approved under appropriate government

Hygiene Measures

standards such as NIOSH (US) or EN 166(EU).

Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Take off immediately all contaminated clothing. Avoid contact with skin, eyes and clothing.

SECTION 9: Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance	Solid. Medium brown colored bead of pyrotechnic composition on a copper-clad chip with two PVC insulated connecting wires of various lengths. Red or blue lacquer coating on igniter head.
Color	Medium brown colored.
Odor	No odour information available.
Odor Threshold - Lower	No Information available.
Odor Threshold - Upper	
pH-Value, Conc. Solution	No Information available.
pH-Value, Diluted Solution	No Information available.
Melting point	No Information available.
Initial boiling point and boiling range	No Information available.
Flash point	No Information available.
Evaporation rate	No Information available.
Flammability State	No Information available.
Flammability Limit - Lower(%)	No Information available.
Flammability Limit - Upper(%)	No Information available.
Vapor pressure	No Information available.
Vapor Density (air=1)	No Information available.
Relative density	No Information available.
Bulk Density	No Information available.
Solubility	No information available.
Decomposition temperature	No Information available.
Partition coefficient; n-octanol/water	No Information available.
Auto Ignition Temperature (°C)	No Information available.
Viscosity	No Information available.
Explosive Properties	Bead of pyrotechnic composition on a copper-clad chip with two PVC insulated connecting wires of various lengths.
Oxidizing Properties	No Information available.
Molecular Weight	No Information available.
Volatile Organic Compound	No Information available.

SECTION 10: Stability and Reactivity

Reactivity	Reaction with heat, acids and reducing agents.
Stability	Stable under normal temperature conditions and recommended use.
Hazardous Polymerisation	Will not polymerise.
Hazardous Decomposition Products	Smoke contains oxides of Boron and Titanium.
Conditions to Avoid	Avoid contact with strong oxidisers. Avoid heat, flames and other sources of ignition.
Materials to Avoid	Keep away from strong acids. Keep away from strong reducing agents and strong oxidising agents.

SECTION 11: Toxicological Information

Toxicological Information	No toxicological information for the overall finished product.
Acute Toxicity (Oral LD50)	No Information available.
Acute Toxicity (Dermal LD50)	No Information available.
Acute Toxicity (Inhalation LC50)	No Information available.
Skin Corrosion/Irritation	No Information available.
Respiratory Sensitisation	No Information available.
Skin Sensitisation	No Information available.
Reproductive Toxicity:	No Information available.
Germ Cell Mutagenicity:	No Information available.
Genotoxicity - In Vitro	No Information available.
Genotoxicity - In Vivo	No Information available.
Carcinogenicity:	
Carcinogenicity	No Information available.
NTP - Carcinogenicity	The product and its components are not listed.
OSHA - Carcinogenicity	The product and its components are not listed.
IARC Carcinogenicity	The product and its components are not listed.
Specific Target Organ Toxicity - Single Exposure:	
STOT - Single Exposure	No Information available.
Specific Target Organ Toxicity - Repeated Exposure:	
STOT - Repeated Exposure	No Information available.

SECTION 12: Ecological Information

Ecotoxicity	The product does pose an environmental hazard.
Acute Toxicity - Fish	No Information available.
Acute Toxicity - Aquatic Invertebrates	No Information available.
Acute Toxicity - Aquatic Plants	No Information available.
Degradability	There are no data on the degradability of this product.
Bioaccumulative Potential	No data available on bioaccumulation.
Mobility	No information available.
Results of PBT and vPvB Assessment	No information available.
Other Adverse Effects	No information available.

SECTION 13: Disposal Considerations

Waste Management	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
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Disposal Methods

Waste disposal must be in accordance with appropriate federal, state, and local regulations.

SECTION 14: Transport Information**UN Number**

UN No. (DOT/TDG)	UN454
UN No. (IMDG)	UN454
UN No. (IATA)	UN0454

Proper Shipping Name

DOT/TDG Proper Shipping Name	IGNITERS
IMDG Proper Shipping Name	IGNITERS
IATA Proper Shipping Name	Igniters

Transport Hazard Class(es)

DOT/TDG Class	1.4
IMDG Class	1.4 S
IATA Class	1.4S

Transport Labels**Packing Group(s)**

DOT Packing Group	<none>
IMDG Packing Group	-
IATA Packing Group	<none>

Special Precautions for User

EMS	F-B, S-X
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Environmentally Hazardous Substance/Marine Pollutant

ADR	No
IMDG	No
IATA	No

SECTION 15: Regulatory Information**US Federal Regulations****SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

The Following ingredients are listed None Listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The Following ingredients are listed None Listed.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

The Following ingredients are listed None Listed.

SARA 313 Emission Reporting

The Following ingredients are listed None Listed.

CAA Accidental Release Prevention

The Following ingredients are listed None Listed.

OSHA Highly Hazardous Chemicals

The Following ingredients are listed None Listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

The Following ingredients are listed None Listed.

California Air Toxics "Hot Spots" (A-I)

The Following ingredients are listed None Listed.

California Air Toxics "Hot Spots" (A-Ii)

The Following ingredients are listed None Listed.

Massachusetts "Right To Know" List

The Following ingredients are listed None Listed.

Rhode Island "Right To Know" List

The Following ingredients are listed None Listed.

Minnesota "Right To Know" List

The Following ingredients are listed None Listed.

New Jersey "Right To Know" List

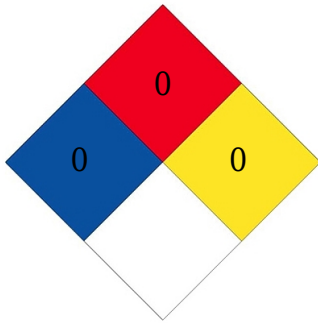
The Following ingredients are listed None Listed.

Pennsylvania "Right To Know" List

The Following ingredients are listed None Listed.

SECTION 16: Other Information

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

Health	<input type="text" value="0"/>
Flammability	<input type="text" value="0"/>
Physical Hazard	<input type="text" value="0"/>
Personal Protection	<input type="text"/>

Revision Comments This is first issue
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Revision 1

Disclaimer

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